HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

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HOSPITAL ABSTRACTS

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HOSPITALS IN GENERAL

See also Abstract No. 1425

1377. HUMERFELT, S. Hvilken rolle skal sykehuset spille i det totale helsevesen. **[What role should the hospital play in the total health service?]** *Sykehuset*, Oslo, 1975, vol. 38, no. 5, pp. 285-297.

In an average year, 4.3 per cent of the population are admitted to hospital, 5.0 per cent are referred to a specialist, and 7.8 per cent are referred and/or admitted to hospital: i.e. a comparatively small proportion of the public, albeit one suffering from more serious and complicated conditions. Diseases requiring a high degree of diagnostic and therapeutic competence comprise a high proportion of hospital cases but only a low percentage of cases seen by the primary health services. It is becoming more and more difficult to get hold of a doctor in the big cities, largely because the medical services are better organized in the country. Hospital costs are increasing rapidly (doubling every six to eight years) in step with increasing specialization, while improved treatment puts more and more long-stay cases into hospital beds, leading to waiting lists of up to a year for acute patients. Construction of nursing homes and similar facilities should solve this problem within five years. An efficient out-patient department can save many admissions. Certain specialists, in particular one plastic surgeon, have evolved a system whereby they visit provincial hospitals and health centres in turn, seeing some 300 patients a year in them. Selection procedures for psychiatric care are going to have to evolve. Improved laboratory, emergency, and social medicine services are lessening the doctor's burden considerably. Hospitals must extend their research work in addition to their valuable teaching function.

HOSPITALS IN GREAT BRITAIN

1378. BRITISH HOSPITALS EXPORT COUNCIL. **British health care and technology: the British Hospitals Export Council yearbook 1975.** London, Health and Social Service Journal/Hospital International, 1975, 191pp. £2.50.

This volume follows the pattern of its predecessors [see *Hospital Abstracts*, Vol. 13, Abstract 1365 and Vol. 14, Abstract 1219] and includes the same features. The 19 papers cover a range of aspects of British hospitals with particular reference to construction and equipment. There are summaries of the papers in French, Spanish and German.

HOSPITALS IN OTHER COUNTRIES

1379. AMERICAN HOSPITAL ASSOCIATION. **The hospital trustee reader: selections from Trustee Magazine.** Chicago, American Hospital Association, 1975, viii, 206pp.

This collection of papers originally published in *Trustee* from 1970 to 1974 have

been selected on the basis of their usefulness to trustees in today's rapidly changing health care field. The topics covered are: the trustee's role; problems and issues; organization; external pressures; and relationships with the medical staff.

PLANNING, DESIGN AND CONSTRUCTION

See Abstract No. 1491

DETERMINING SIZE OF HOSPITAL AND BED NEEDS

See Abstract No. 1513

CONSTRUCTION METHODS AND BUILDING MATERIALS

1380. BUREAU, J. L'hôpital évolutif: "prêt à construire". **[The evolutive hospital: 'ready to build'.]** *Techniques Hospitalières*, Paris, 1975, April, vol. 31, no. 355, pp. 68-71.

This paper describes research on the construction of a hospital with a view to perpetual change and flexibility, following scientific and technical progress, progressive patient care and the best use of all resources. Various plans of the evolutive hospital are given where the ratio of beds between intensive, intermediate and minimal care is 20:40:60. An operating suite and out-patient department are included in this project. The construction method consists of a metal and concrete framework, and prefabricated, autonomous, and interchangeable 'cells' of standard dimensions made of concrete, plastic, wood or aluminium. They are divided by 25 cm. wide flexible sheaths which contain all service pipes and cables. This allows almost unlimited general and partial extensions. The assembly work is done on the site. The construction stages are limited to the erection of the framework, the insertion of the cells and their linking up and the putting of the whole building into service. Ten plans illustrate various possible layouts of the 'cells'.

HOSPITAL DESIGN

1381. BESKE, F. Standardprogramm für ein Regelkrankenhaus mit 300 Betten. **[Standard programme for a normal hospital with 300 beds.]** *Krankenhaus*, Stuttgart, 1975, July, vol. 67, no. 7, pp. 254-259.

In Schleswig-Holstein a working party is preparing a standard brief for a 300-bed hospital with beds allocated as follows: medicine, 106; surgery 108; obstetrics and gynaecology, 54; general practitioner beds, 20; intensive care, 12. The brief is to be in four parts of which the first, concerned with space requirements, is reproduced in this paper. The areas of individual rooms and services are given under the main heads of: entrance and administration; nursing; examination and treatment; supplies; and communications. The total area works out at 18,290 sq.m. or 60.96 sq.m. per bed.

1382. DOWNING, S. W. and MOSESMAN, B. **Earthquake regulations: what do they mean to your hospital?** *Hospital Forum*, Los Angeles, 1975, June, vol. 18, no. 3, pp. 4-8, 27.

The development of state regulations concerning earthquake safety affecting the design and construction of hospitals in California is discussed. They are intended to minimize the damage to hospitals in order to maintain medical services in such an emergency. The effect of the present regulations are discussed with reference to the new concepts which must be incorporated into the design of new buildings or additions to existing ones including the need for a geologic and seismic investigation report.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

1383. **Indigenous problems of design generate unique solutions.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 12, pp. 28, 30, 34.

Recent designs for two American hospitals are described, and parts of the exteriors and interiors of both hospitals are illustrated by colour photographs. Jordan Hospital, Plymouth, Mass., serves an area of rapidly expanding population and so required an expansive building programme; building a new hospital, which would only be small at present, was not financially practical. The programme has included renovation of the old building and new accommodation for 56 beds initially, with shell space for 40 more. To meet the unusual requirement of 40 to 60 beds, all in single rooms, for each nursing unit, a double-loaded corridor plan was combined with three triangular shaped clusters of patients' rooms which extend outwards from each side of the corridor. One cluster comprises the cardiac care unit. Nurses' stations and utility rooms are located at each end of the corridor, with a core of treatment rooms in the centre of the corridor. Consequently large numbers of patients can be reached easily from the staff units. Martha's Vineyard (Mass.) Hospital is located on an island which attracts many summer visitors, and so an entirely new hospital was planned for this rapidly increasing population. Environmental considerations required the building of a single-storey hospital, which could be easily constructed without much use of outside labour. The hospital was constructed in non-combustible wood and features three parallel wings; future expansion is possible by adding more wings. Landscaping ensures that the hospital blends well with the attractive natural environment. The hospital has its own sewage treatment plant.

1384. LOCKERBY, F. K. **Howard University opens new 500-bed hospital.** *Hospitals*, Chicago, 1975, July 1, vol. 49, no. 13, pp. 34-37.

The new 500-bed Howard University Hospital, Washington, D.C. (architects: Smith, Hinchman and Grylls, Detroit) came into use in April 1975. It is the main teaching hospital for the training of black physicians in the United States. Since it serves an area where most patients have no family doctors the hospital has a very extensive out-patient department with 48 examination rooms. The four ward floors are designed to allow medical staff to see ambulant patients and do clinical research in the same area in which they treat in-patients and teach. Howard is the first hospital in the United States equipped for intra-operative radiotherapy, using remote after-loaders which eliminate radiation exposure. The logistics of the transfer of 130 patients

from Freedman's Hospital (which was closing down) to the new hospital is described: the whole operation took about six hours with the assistance of 14 ambulances lent by the District of Columbia and the U.S. Army.

1385. **Four-step design is on the level.** *Modern Healthcare*, Chicago, 1975, July, vol. 4, no. 1, pp. 16v-16x.

The new 167-bed Normandy (Mo.) Osteopathic Hospital-South (architects: Kromm Rikimaru and Johansen, St. Louis, and Perkins and Will, Chicago) is built on the side of a hill and consists of four levels, the lowest being an enclosed parking area for physicians. The main entrance is on the upper level at the top of the hill, complete with an entry bridge over a middle level ambulance court. This storey also houses administrative offices, laboratories, physiotherapy unit, medical/surgical areas and cardiac care unit. The middle level has additional laboratories and medical/surgical areas as well as the ambulance entrance, emergency room, operating suites, intensive care unit, maternity department, inhalation therapy unit and chapel. On the lower level are more surgical/medical areas, paediatrics department and ancillary services. All patients' rooms are single, except in the paediatrics department which has 12 double and eight single rooms. An elevation and three photographs are included.

1386. SWETCHINE, J. Le nouveau centre hospitalier de Martigues: 410 lits en 18 mois 'clefs en main'. **[The new hospital centre at Martigues: 410 beds in 18 months.]** *Techniques Hospitalières*, Paris, 1975, April, vol. 31, no. 355, pp. 58-63.

The construction of the new hospital centre at Martigues took 31 months from initial planning to the handing over of the keys; actual construction time was 21 months including periods of bad weather. It is built on a slope and consists of: a medico-technical services section; a seven-storey ward block with one maternity unit, 11 surgical and medical units, one paediatric unit, and stores in the basement; a two-storey block housing general, sterilization, pharmaceutical and administrative services; and staff quarters. The hospital is air-conditioned and has a specially constructed facade to give protection against fierce sun, low winter temperatures and strong winds. This hospital is one of a series of nine standard project hospitals of 200 to 400 beds, which has proved to be a great success because of its easy adaptability to the plan, site and climate, its functional qualities, low cost and speed of construction. Four plans and four photographs are included.

1387. ZUMBRUNN, F. and others. Das neue Bezirksspital Oberhasli in Meiringen. **[The new Oberhasli District Hospital, Meiringen.]** *Veska*, Aarau, 1975, July, vol. 39, no. 7, pp. 331-337.

The new 86-bed Oberhasli Hospital, Meiringen, Switzerland (architects: Itten & Brechbühl, Berne) came into use in April 1974. The single-storey podium houses administrative, diagnosis and treatment areas and is on a double corridor plan. The three ward floors above are on a single corridor plan: the first and second floors each have 31 beds (three single, eight double and two six-bed rooms) and the third (maternity) 24 beds. The gross area of each ward floor works out at 25 sq.m. per bed. Kitchen, staff dining-room, laundry and stores are in the basement and there is also an underground emergency area which would take 500 beds. The paper is illustrated with plans of the ground floor and a typical ward floor, an elevation and five photographs.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract No. 1522 (Occupational therapy)

1388. BLAIVE, P. Le centre hyperbare de l'hôpital Salvator, Marseille. **[Hyperbaric centre, Salvator Hospital, Marseille.]** *Techniques Hospitalières*, Paris, 1975, March, vol. 31, no. 354, pp. 41-52.

The hyperbaric centre at Marseille was originally established for the treatment of diving accidents, but now specializes in the treatment of other disorders. The centre consists of eight rooms divided into a resuscitation group, consisting of two rooms and three locks, and a therapeutic group, consisting of one room and two locks. Both groups are equipped with command and control desks. The installations and their functions are described in detail. All rooms are painted in non-inflammable epoxic paint, are centrally heated and air-conditioned, and have telephones, special lamps, outlets for medical gases and monitoring equipment and disinfection installations. Special precautions are taken against fire, which is the greatest danger in the hyperbaric centre. During the period 1967 to 1974 the centre has treated 416 chronic and 1,034 emergency patients. Two plans and six photographs are included.

ENTRANCES, CORRIDORS AND STAIRWAYS

1389. **Design of public spaces encompasses more than decor.** *Hospitals*, Chicago, 1975, July 16, vol. 49, no. 14, pp. 20, 22.

Interior design of public spaces in hospitals is not merely interior decoration with attractive furniture and accessories, it is design based on consideration of the needs for and the uses of these spaces. The main lobby of the Webber Memorial Building of Harper Hospital, Detroit, was designed to show stability and organization and to instil confidence, which is so important to patients and visitors. Features include honed granite floors, brick walls and a 30-feet by 10-feet sculpture. The circular central information desk is adjacent to the two main corridors that lead to other areas of the building. Lounge areas are carpeted and have large upholstered furniture with wood trim. The coffee shop, gift shop and chapel are designed on the same principles.

ENGINEERING SERVICES

1390. KNIPE, J. **The application of terotechnology and its concepts to hospital engineering.** *Hospital Engineering*, Stevenage, 1975, July, vol. 29, pp. 5-14.

Terotechnology is a combination of management, financial, engineering and other practices applied to physical assets in pursuit of economic life-cycle profits. This paper describes the application of terotechnology and its concepts to hospital engineering in Great Britain. It covers: a systems approach to overall management; application of terotechnology to hospital engineering; planned preventive maintenance; monitoring—maintenance standards in relation to their costs; commissioning; and staff training, extension of existing systems and management practices codes.

1391. ROBERTS, B. M. **Improving the efficiency of hospital services commissioning.** *Electrical Review*, London, 1975, Aug. 1, vol. 197, no. 5, pp. 149-153.

The importance of proper commissioning of hospital mechanical and electrical engineering services following their installation and prior to their use is discussed and also the difficulties involved. A plan for commissioning is suggested and references are made to relevant documents including Department of Health and Social Security manuals.

TRANSPORT IN GENERAL

1392. SALZER, J. J. Transportanalyse für Krankenhäuser. **[Analysis of hospital transport.]** *Krankenhaus*, Stuttgart, 1975, July, vol. 67, no. 7, pp. 260-264.

While the internal transport system in an industry takes the form of a chain the hospital system is rather a network with a two-way transport to and from the main centres. Before a hospital system is decided on, a detailed analysis of expected material flow is necessary: this analysis need not take into account the degree of automation, or the particular system, which may eventually be adopted. With the aid of a computer the necessary data can be analysed and working plans drawn up. This involves time-tables for different types of traffic. Vertical transport is likely to lead to bottlenecks and this is dealt with in some detail. The paper includes schematic drawings of material flow, an isometric drawing of an automated transport system in a 400-bed hospital, and a specimen distribution plan.

VENTILATION AND AIR-CONDITIONING

See Abstract No. 1451

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See Abstract No. 1390

EQUIPMENT, FITTINGS, FURNITURE

INTERIOR DECORATION

See Abstract No. 1389

FLOORS AND FLOOR COVERINGS

1393. STEUER, W. VON. Textile Bodenbeläge im Krankenhaus? **[Carpeting in the hospital?]** *Krankenhaus*, Stuttgart, 1975, July, vol. 67, no. 7, pp. 264-266.

While the advantages of carpeting over other types of floor covering have led to its increasing use in the hospitals of Western Germany there are certain points relating

to hygiene which must be borne in mind. These include: (i) carpeting is not suitable for some areas (e.g. operating suites, intensive care units, infectious diseases wards, X-ray and physiotherapy departments); (ii) carpeting should be limited to certain types and qualities; (iii) cleaning materials and disinfectants should be tested for efficiency; (iv) cleaning staff should be properly trained and provided with the right equipment; (v) standards for cleaning and disinfecting must be observed; and (vi) there must be thorough supervision of hygienic measures.

BEDS, COTS, ETC.

See Abstract No. 1497

EQUIPMENT GENERALLY

1394. **Laboratory hangs from the walls.** *Modern Healthcare*, Chicago, 1975, July, vol. 4, no. 1, pp. 47-49.

This paper describes the modernization of the laboratories of St. John's Mercy Medical Center, St. Louis, using a special adaptation of the Co/Struc hospital furniture system. Core and bench modules accommodating mechanical, electrical and plumbing outlets are mounted on rails fixed to the walls. All work surfaces, cabinets, drawers, etc. can be moved, taken apart, and transferred to another area as laboratory needs change. Each of the 100 staff members was consulted before the order was placed and asked to plan the height of his countertops, the need for storage and display, and placement and size of equipment. Staff also projected the need for locker modules to be used for storage and transport of items to incubators, refrigerators and autoclaves. The laboratory director, six technicians and an installer from the suppliers unpacked and installed the entire system in 1½ days. Three photographs are included.

1395. SJUKVÅRDENS OCH SOCIALVÅRDENS PLANERINGS- OCH RATIONALISERINGSINSTITUT. Inredning i sjukvårdsbyggnader. Del 2. Standardisering au laboratorieinredning. **[Furniture and fittings for hospitals. Part 2. Standardized laboratory fittings.]** (Spri råd 5.22) Stockholm, Spri, 1975, 20pp.

This advice note presents an account of the second stage of a study which is intended to provide the basis for standardization of hospital furniture and fittings [see also *Hospital Abstracts*, Vol. 15, Abstract 797]. It covers cupboards, shelves, benches, sinks, etc. for use in chemical, bacteriological, physiological and pathological laboratories. The note first outlines the requirements of laboratory furniture, then presents proposals for each individual item. [This abstract has been prepared from an English summary of the publication.]

1396. GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY, WELSH OFFICE and SCOTTISH HOME AND HEALTH DEPARTMENT. **Pathology department. Revised.** (Health Equipment Note No. 15) London, Her Majesty's Stationery Office, 1975, 47pp. £0.90

This Equipment Note gives guidance on the equipment regarded as generally suitable for an area pathology service laboratory serving a population of at least

200,000. The equipment is listed under rooms or spaces related to the laboratory functions. Guidance on cost is given for each laboratory space or room. A list of relevant British Standards is included.

SURGICAL EQUIPMENT

See Abstract No. 1476

ELECTRONIC EQUIPMENT

See Abstract No. 1487

STAFF GENERALLY

STAFF COMPLEMENTS

See also Abstract No. 1412

1397. JONSSON, E. and NEUHAUSER, D. **Hospital staffing ratios in the United States and Sweden.** *Inquiry*, Chicago, 1975, June, vol. 12, no. 2, suppl., pp. 128-137.

It has been known for some time that Swedish hospitals have fewer staff per patient day than United States hospitals. This study shows that the difference can be explained partly by different case mix and partly by differences in what happens to similar patients in the two countries. A detailed comparison of two roughly similar community hospitals shows that the Swedish hospital had more long-stay patients, and the American hospital provided more diagnostic services for similar patients. There are many differences, great and small, including differences in definition, different types of staff doing the same task, and variations in tasks performed. One major key to the explanation of this variation is the absence of an input-output constraint that defines the effect of direct health care on the population served.

RECRUITMENT

See Abstract No. 1404

STAFF MANAGEMENT

See also Abstract No. 1419

1398. ELLIOTT, V. F. and SCOTT, C. E. **Uniform timekeeping system installed.** *Hospitals*, Chicago, 1975, July 16, vol. 49, no. 14, pp. 141-142, 146, 148.

Sheppard and Enoch Pratt Hospital, Towson, Md., employs 600 staff in many buildings. Following an examination of several timekeeping systems, it was decided

to select a standardized time clock system with time saving features and computer printouts for feedback data for development and implementation. The time card designed for the system is described and examples are reproduced. Time clocks are located on the basis of staff traffic flows, parking availability and location of ultimate work station. A manual describing the system was produced. The new system has proved successful; the reasons for this success are outlined.

STAFF TRAINING

See Abstract Nos. 1400, 1405-1411, 1413, 1414, 1417, 1418, 1420, 1477, 1504

STAFF WELFARE

See also Abstract Nos. 1401, 1402, 1456

1399. AMERICAN HOSPITAL ASSOCIATION. **Guidelines on tuberculosis control programs for hospital employees.** *Hospitals*, Chicago, 1975, July 1, vol. 49, no. 13, pp. 57-60.

Since patients with tuberculosis are admitted to general hospitals it is becoming increasingly important for hospital staff to be protected by an adequate tuberculosis control system. There are two methods: (i) systematic skin-testing of tuberculin-negative staff, with isoniazid treatment of skin-test 'converters'; and (ii) BCG vaccination of tuberculin-negative staff followed by annual chest X-rays. Under either method tuberculin-positive staff should have annual chest X-rays. BCG might be used in hospitals serving an area with a high endemic clinical tuberculosis incidence: elsewhere regular skin-testing and isoniazid prophylaxis are recommended. Vigorous and compulsory follow-up measures are essential.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

1400. BUSINESS GRADUATES ASSOCIATION. **Education for senior health services management: a report.** London, Business Graduates Association, 1975, [vi], 15pp.

This study was commissioned as part of a programme to identify areas of the public sector where a formal education in management at master's degree level is appropriate. The report considers the management needs of the reorganized National Health Service, discusses the type of education considered to be appropriate and examines existing programmes. It is concluded that at least one master's degree programme in health service administration should be established in a university business school as soon as possible in order to provide the full managerial education required. Developments are already taking place in several university business schools to provide such a programme.

MEDICAL STAFF

See also Abstract Nos. 1420, 1469, 1498

1401. MATANOSKI, G. M. and others. **The current mortality rates of radiologists and other physician specialists: deaths from all causes and from cancer.** *American Journal of Epidemiology*, Baltimore, 1975, March, vol. 101, no. 3, pp. 188-198.

A statistical study was carried out over a 60-year period in 10-year bands to test the hypothesis that increasing exposure of doctors to radiation led to increasing mortality rates. The sample was taken from members of American specialty societies. The results, which are presented in tables, indicated that radiologists entering the specialty before 1940 had higher mortality rates for deaths from all causes and from cancer, and those entering in the following decade had a higher cancer mortality rate. The two final groups had not aged sufficiently for any conclusions to be drawn. The reasons for these results are discussed.

1402. MATANOSKI, G. M. and others. **The current mortality rates of radiologists and other physician specialists: specific causes of death.** *American Journal of Epidemiology*, Baltimore, 1975, March, vol. 101, no. 3, pp. 199-210.

A statistical study was carried out over a 50-year period, divided into 10-year bands, based on a sample of members of American specialty societies. The results are tabulated and show that radiologists in the earliest band, entering the specialty before 1930, had the highest mortality rate for severe chronic diseases but in later bands only for cancer. The leukaemia mortality rate, high in the first two bands, has decreased but that of lymphoma has increased. Reasons are suggested for these results.

1403. COLLINS, I. S. **The role of the clinical pharmacologist in the teaching hospital.** *Medical Journal of Australia*, Sydney, 1975, June 21, vol. i, no. 25, pp. 787-789.

Clinical pharmacology is the scientific basis of rational drug therapy. The functions of the clinical pharmacologist comprise education, clinical practice, research and administrative duties. Each of these functions is discussed and the work of the department of clinical pharmacology in a modern teaching hospital is outlined.

NURSING STAFF

See also Abstract Nos. 1471, 1472, 1493, 1498

1404. TROUT, F. **Placement service would cure staffing ills.** *Dimensions in Health Service*, Toronto, 1975, July, vol. 52, no. 7, pp. 13-14.

This is a plea for the setting up in every large Canadian city of a central bureau for nursing appointments. Such bureaux should provide the following services; initial screening of all nurses applying for posts; maintaining complete files on each person registering at the bureau; maintaining a list, with full details, of all nursing vacancies; and compiling statistics on attrition rates, persons entering and leaving the district, numbers of specialist nurses available, numbers graduating from nursing schools, etc. The need for such a service will continue to grow as hospitals become more complex and nurses become more mobile.

1405. FERGUSON, M. **A new look at nursing education.** *International Journal of Nursing Studies*, Oxford, 1975, July, vol. 12, no. 2, pp. 87-93.

The educational philosophy and organization of an undergraduate nursing course 'Child Growth and Development' at the Welsh National School of Medicine is described. It is taught during the pre-clinical period as a link between the theoretical and practical study. The course involves classroom teaching and the study of a family with a newborn baby based on each student's contact with such a family.

1406. HOHMAN, J. **Degree-seeking RNs gain academic options.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 12, pp. 89-91.

This paper discusses points raised at the first joint meeting of the American Hospital Association Assembly of Hospital Schools of Nursing and the American Association of Colleges of Nursing, which was held in Chicago in March 1975. Speakers emphasized the importance of providing flexible curricula toal low registered nurses (RNs) to obtain degrees whilst developing personal career goals. Such RNs tend to be highly career motivated and to require opportunities for mobility between various branches of nursing. In future, even greater emphasis will be placed on continuing education throughout a nurse's career to allow for career mobility and advancement. An interesting development at the School of Nursing, University of Wisconsin, offers two parallel degree courses, providing for the generalist, administrator and teacher, and for the practitioner, clinical specialist and researcher respectively; there are opportunities for articulation between the courses. Other speakers advocated the inclusion of some in-service training in academic credit schemes, particularly for those who were unable to undertake full-time study. In conclusion, the importance of role definition in nursing was emphasized, and it is expected that increased career mobility and emphasis on the nurse's role as the patient's advocate will help to define the role more strongly.

1407. POOLE, D. L. and WILSON, F. **Integrated 'teach-ins'.** *Nursing Times*, London, 1975, Aug. 14, vol. 71, no. 33, pp. 1310-1311.

The Lancaster District is improving the practical and academic training of qualified nurses and trying out a new concept of integrated patient care. On the last Wednesday of each month a teach-in is held for nurses and those of allied disciplines. It is open to all grades and the nurse tutors sometimes use the sessions as part of their training programme. Basically the teach-ins are run by a nursing officer and a consultant anaesthetist. Any nursing topic is chosen; the subject for some recent sessions are given, together with the details of the staff and sometimes patients who spoke at them. The teach-ins have proved very successful.

1408. MONVALL, E. 5-terminsutbildningen hotar att försvinna. **[The five-term nursing course is fated to disappear.]** *Tidskrift för Sveriges sjuksköterskor*, Stockholm, 1975, Aug., vol. 41, no. 14, pp. 57-58.

The Swedish Sixth Form is divided up into fourteen career-oriented 'sides', the nursing side being further subdivided into a health and sick nursing plus geriatric division and a psychiatric nursing division. A total of 558 persons applied for the 190 places on Stockholm County's five-term basic nursing course: 12 per cent were accepted.

Of 139 school leavers who applied for the 60 places on the three-term course, 45 per cent were accepted. There were 84 applicants for the 30 places on the three-term auxiliary nursing course. It is thus considerably easier to get onto the three-term courses, which are increasing in numbers, although the five-term course is still predominant in numbers trained at the moment. Between 1975 and 1980, the proportion of trainees on five-term courses will fall from 60 per cent to 30 per cent (from 370 out of 640 places to 210 out of 690). It is expected that as nurse training becomes more co-ordinated with the rest of the educational system, the five-term course will disappear.

1409. DAVIES, G. W. **Management training—where now?** *Nursing Mirror*, London, 1975, July 10, vol. 141, no. 2, pp. 63-64; July 17, vol. 141, no. 3, pp. 68-69.

The first part of this paper examines existing management training for nurses and concludes that there is a need for increased central control to ensure: (i) a more precise definition of the responsibilities and training needs of different grades of nurse managers; (ii) that the structure of the training scheme, and the methods used, enable the nurse to transfer new knowledge and skills into practice; and (iii) that the training is of an acceptable standard wherever it is carried out. The second part outlines a proposed training scheme developed by Gwent College of Higher Education, Newport, and Gwent Area Health Authority. The training would be at three levels: first line, middle and senior. The course at each level would lead to a recognized qualification.

1410. WHITE, D., FRAWLEY, A. and CHARLETON, J. W. **Partnership in management development.** *Nursing Times*, London, 1975, Aug. 14, vol. 71, no. 33, occasional papers, 81-84; Aug. 21, vol. 71, no. 34, occasional papers, 85-88.

This is an evaluation of a first-line management course for nurses held at the United Manchester Hospitals. The first part describes the evaluation process and the involvement of nursing officers. Evaluation techniques, used as a direct and immediate aid to first-line nursing management training, were judged to be very conducive to improved performance by ward sisters back on the job and to their nursing officers' direct involvement in the application of new learning and new ideas. In the second part the focus is on the course itself and the action which followed.

1411. TIFFANY, R. **Cancer education and training.** *Nursing Mirror*, Sutton, Surrey, 1975, Aug. 14, vol. 141, no. 7, pp. 66-68.

The need for more education and training for nurses in oncology has become increasingly evident over the past few years. An outline curriculum was approved by the Joint Board of Clinical Nursing Studies in 1974. At present the Royal Marsden Hospital is the only centre operating this approved course, but it is hoped that others will be starting in 1975. The course, which lasts six months, has five weeks of formal lectures, supplemented by ward tutorials and clinical teaching. Clinical experience is gained in radiotherapy, surgery, medical oncology, and a specialty of the nurse's choice, such as terminal care, paediatrics or out-patients. Students are encouraged to participate in ward rounds and unit meetings, attend the conferences of the various medical divisions and visit units and departments. The hospital also arranges: regular symposia on specific topics to help nurses keep abreast of developments; workshops

for community nurses; one-week refresher courses for health visitors; and study days for student nurses from 20 co-operating hospitals.

1412. HACQUART, G. Essai d'étude économique de l'unité de soins: vers une maîtrise de la formation des coûts de personnel. **[Essay on the economic study of the hospital ward: towards control of staff costs.]** *Techniques Hospitalières*, Paris, 1975, April, vol. 31, no. 355, pp. 72-75.

Staff costs can only be analysed by a study of a particular ward to determine how the time of qualified and unqualified nursing staff is used and to measure more precisely supply and demand. The total volume of work and the amount of direct care depends mainly on the structure and organization of the ward and the hospital. Wrong allocation of duties wastes the time of qualified nurses who now spend only 30 per cent of their time on direct care. In order to establish a proper distribution of duties it is necessary to find a criterion for measuring supply and demand. One such criterion is the dependency of patients and the resultant level of care needed: (i) infrequent care; (ii) standard care; (iii) complex care; and (iv) intensive care. Measurement of the time spent on direct care enabled the author to define the nature and duration of care given by the various categories of staff, to assess the volume of work and staff needed, and to allocate staff according to the needs of the patients. This approach should result in more rational staff management. It will not reduce costs, but should give staff and patients greater satisfaction.

1413. BURCH, M. **Teaching in the ward environment.** *Nursing Mirror*, Sutton, Surrey, 1975, July 31, vol. 141, no. 5, pp. 59-61.

Providing a comprehensive and meaningful ward teaching programme can be difficult. All the possible teaching situations must be used and ward teaching must be attempted from a variety of angles. These include: by example; ward meetings; progress reports; informal discussion; formal lectures; and allocation of ward duties. Suitable allocation of ward duties can provide each learner with all-round experience of the duties to be performed on the ward. As an example a typical week's allocation of duties in a psychiatric ward is given.

1414. BARROWCLOUGH, F. **Nursing auxiliaries training in geriatric hospitals.** *Nursing Mirror*, London, 1975, July 17, vol. 141, no. 3, pp. 70-71.

This paper makes recommendations on the in-service training of nursing auxiliaries in geriatric hospitals. It suggests a programme of 12 periods of three to four hours each, with provision for tea breaks. Arrangement of the sessions should be flexible to meet the requirements of nursing auxiliaries in a variety of working situations. Each session should be sub-divided into several topics. An outline for the 12-session programme is given.

1415. HOUSE, V. G. **Paradoxes and the undergraduate student nurse.** *International Journal of Nursing Studies*, Oxford, 1975, July, vol. 12, no. 2, pp. 81-86.

The conflicts facing the undergraduate nurse studying in two different institutions, the university and the hospital, each with its own educational philosophy and social organization are discussed and illustrated by quotations from the students.

1416. MOORES, B. and THOMPSON, A. **Attitudes towards student nurse allocation programmes.** *International Journal of Nursing Studies*, Oxford, 1975, July, vol. 12, no. 2, pp. 107-117.

Two questionnaires were sent, one to a sample of student nurses and the other to a sample of sisters in the same six hospitals. The results are reproduced in six tables and are statistically analysed, the methods used being described. They show considerable variation of opinion on nurse allocation in different hospitals and also between individuals and illustrate where changes are needed to improve the situation.

1417. AMERICAN HOSPITAL ASSOCIATION. **Career goals of hospital school of nursing seniors: report of a survey.** Chicago, American Hospital Association, 1975, viii, 67pp.

More than 11,000 senior students in hospital schools of nursing in the United States completed a questionnaire in a 1973 survey designed to answer a number of questions relating to their intentions following completion of their studies. The results are presented in 29 tables and discussed. The major findings were: (i) a large percentage expected to continue their education either upon graduation or in the future; (ii) the majority who had accepted jobs had chosen hospitals as their first employer; (iii) clinical experience appears to influence choice of specialty; and (iv) most students would be willing to work in manpower shortage areas.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See also Abstract Nos. 1477, 1479

1418. MCMINN, A. and RUSSELL, G. J. **Training of medical laboratory technicians: a handbook for tutors.** (WHO Offset Publication No. 21) Geneva, World Health Organization, 1975, [iv], 83pp.

This handbook sets out to be no more than a simple instructional manual that will act as a guide to medical laboratory staff who, in the absence of suitable courses, seek to improve their teaching and instructional skills. It covers: theory and practice of instruction; objectives and curriculum; analysis and presentation of material; choice of media; examinations and assessment; the student technician; and the tutor. Included among the annexes is a proposed training programme.

1419. MEARA, R. J. **Managing the remedial professions.** *Health and Social Service Journal*, London, 1975, July 19, vol. 85, no. 4448, pp. 1538-1539.

In a recent circular the Department of Health and Social Security gives the district community physician responsibility for the management of the remedial professions. This is in conflict with the Tunbridge Report which had recommended the post of consultant in rehabilitation. As the district community physician has as yet no supporting staff of his own it would be difficult for him to manage busy departments. It is also too early to say whether the district community physician would be acceptable to the professions concerned. One district has convened a series of meetings of all concerned, including the personnel department, to examine and clarify existing relationships and assess the effect of new ones.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 1400, 1409, 1410

1420. FENNINGER, L. D. **The impact of hospital organization on graduate medical education.** *Hospital Medical Staff*, Chicago, 1975, vol. 4, no. 7, pp. 20-26.

The future of graduate medical education and, hence, of medical services will be determined in part by medical residents themselves, in part by the changes in medical knowledge, in part by changes in social views and social policy, in part by the way graduate medical education is financed, and in part by the ways in which hospitals are organized. There can be little question that graduate medical education has improved the quality of care in hospitals and in the community. There can also be little question that graduate medical education must place more emphasis on the continuity of care of individuals and families, particularly in ambulatory settings. The hospital will remain an essential base for graduate medical education. Modification of hospital organization and the range of services provided, particularly ambulatory services, will be essential if graduate medical education is to prepare physicians to provide the medical care services needed.

1421. SHELDON, A. **Organizational issues in health care management.** New York, Spectrum, 1975, xiv, 345pp. £9.00

The Intercollegiate Case Clearing House has available over 200 health care management cases. This book is based on those considered to be the best examples of characteristic organizational behaviour and design issues. The intention of the text is to provide a succinct account of current theory and techniques which will give managers some ideas on how to approach the kinds of situations depicted in the cases. The aspects covered are: the job of the manager; managerial values and organizational motivation; organization structure and operating mechanisms; the use of groups as management tools; stability, change, and adaptation in organizations; and leadership—style and tasks.

GOVERNING BODIES, COMMITTEES

See Abstract No. 1379

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 1483, 1487

1422. RAPAPORT, G. D. **A critical look at the motives for hospital mergers.** *Hospital Forum*, Los Angeles, 1975, June, vol. 18, no. 3, pp. 9-12.

Five basic motives leading to mergers are identified and discussed and each is considered to have an economic basis. Although they remove competition and duplication of services they do not necessarily eliminate prestige services or the unequal distribution of health care and they are not the only method of achieving maximum health care effectiveness for the community since this depends upon careful consideration of various factors.

1423. AMERICAN HOSPITAL ASSOCIATION. **Shared services in health care institutions.** Chicago, American Hospital Association, 1975, vi, 32pp.

The purpose of this collection of selected reprints and original papers is to provide executives of hospitals, shared services organizations and hospital associations with an in-depth reference on the major issues in shared services. The aspects covered by the six papers are organization, legal and tax problems, consolidated clinical-medical services, financing and evaluation.

RUNNING COSTS

See also Abstract No. 1412

1424. AMERICAN HOSPITAL ASSOCIATION. **Hospital cost containment through operations management.** Chicago, American Hospital Association, 1975, 2 vols. $38.00

This packaged programme for a workshop on hospital cost containment through operations management consists of an instructor's manual, participant's manual, case studies and 35 mm. colour slides. The manuals are in five sessions: (i) the need for hospital cost control; (ii) approach to cost containment; (iii) the operations management philosophy and approach; (iv) the operations management system; and (v) the operations management challenge. The four case studies are concerned with a community hospital, and the radiology, catering and nursing services departments.

1425. EHRLICH, D. A., editor. **The health care cost explosion: which way now? Based on a symposium in Geneva organized by the Henri Dunant Institute.** Bern, Huber, 1975, xiv, 250pp. £5.44

The costs of health care are absorbing an ever-increasing share of national resources in most countries. This problem troubles governments, citizens as patients and taxpayers, the medical and allied professions, the pharmaceutical industry, and many others. In a fresh endeavour to establish better communication and understanding among the parties, and to try to gain new insight which might assist in getting to grips with the problem, the Henri Dunant Institute organized a symposium on an international, voluntary level. It was attended by 35 distinguished experts representative of the different fields concerned. The papers presented are arranged in this volume under the headings: economic perspectives, institutions, personnel, medicines, consumers and containment.

1426. BERGER, L. B. and SULLIVAN, P. R. **Measuring hospital inflation: a composite index for the measurement and determination of hospital costs in the Commonwealth of Massachusetts.** Lexington, Mass., D.C. Heath, 1975, xviii, 201pp. £7.25

This book describes a new management tool, a composite index, which has been designed to measure the effect of inflationary pressures on hospital costs in Massachusetts. It also explains the principles underlying the development of the composite index and describes the necessary procedures for its successful implementation. Its

primary purpose is to establish a cost threshold, based on the unique characteristics of individual hospitals and the economic forces affecting hospital costs, so that reimbursement for cost increases beyond that threshold will require justification.

BED OCCUPANCY, ECONOMIC USE OF BEDS

1427. GOLDBERG, G. A. and HOLLOWAY, D. C. **Emphasizing 'level of care' over 'length of stay' in hospital utilization review.** *Medical Care*, Philadelphia, 1975, June, vol. 13, no. 6, pp. 474-485.

Utilization review has emphasized 'length of stay' as the criterion for deciding when the patient is ready to leave the hospital. The authors suggest that 'level of care' received by the patient should replace length of stay as the major criterion for deciding on continued care in hospital: 'appropriate hospital placement' means the patient is currently receiving a level of care available only in hospital. Length of stay should be the criterion for deciding intervals when patients are reviewed to determine the currently needed level of care. Explicit criteria for determining when a patient is receiving a hospital level of care should be developed. Such criteria will increase objectivity, provide guidance to utilization review co-ordinators, and assist the hospital in defending its utilization review decisions to an intermediary or professional standards review organization. Level of care will be reflected in a patient's 'services profile', a listing of all the services being received by the patient on any given day. Hospital care is appropriate when a patient's current services profile constitutes a level of care available only in hospital.

1428. ROEMER, M. I. and others. **Copayments for ambulatory care: penny-wise and pound-foolish.** *Medical Care*, Philadelphia, 1975, June, vol. 13, no. 6, pp. 457-466.

The Californian 'copayment' experiment imposed a charge of $1.00 on certain Medicare beneficiaries for the first two visits to a doctor and $0.50 for the first two drug prescriptions each month. Utilization data for six months before and 12 months after the introduction of copayment showed that it resulted in a decline in visits to physicians' offices and other services. After a brief lag, however, hospital rates rose to higher levels more than off-setting the savings to the state from the reduction of ambulatory service use rates. Due presumably to the neglect of early medical care because of the inhibiting effect of the copayments, the greater use of costly hospital services suggests that financial deterrents on access to ambulatory services are counter-productive.

APPOINTMENT SYSTEMS, WAITING LISTS

1429. PAOLI, Y. Le bureau central des rendez-vous. **[Central appointment office.]** *Techniques Hospitalières*, Paris, 1975, March, vol. 31, no. 354, pp. 64-70.

The aim of rational hospital organization is to link medical management with administrative and financial management. This objective can be achieved through operational research, but its implementation and the co-ordination of all activities is

very difficult. The creation of new units is necessary; one of these is the central appointments office. A prerequisite for this is an analysis of the work of the medical staff and detailed information on the patients served. An appointments system involves three actions: (i) collection of information on needs; (ii) treatment of information to fix appointments; and (iii) dissemination of information on appointments made to all concerned.

1430. KENNEDY, T. C. S. **A method of analysing hospital surgical waiting lists.** *Methods of Information in Medicine*, Stuttgart, 1975, July, vol. 14, no. 3, pp. 133-140.

During the development of a minicomputer-based hospital administration system at Southend Hospital, analysis of surgical waiting lists has become a routine part of the administrative procedures applied within the hospital. At the end of each month a single analysis sheet is produced for each list, containing all the significant information which can be derived from the data. Further cumulative statistics are available on demand. The analysis consists essentially of three parts: (i) a histogram of the patients remaining on the list at the end of each month; (ii) a numerical breakdown of the list showing changes during the month; and (iii) a breakdown of the list by the loading which it represents to the operating theatres and nursing staff. Examples of these are reproduced and their function is described. This type of analysis on a regional or national scale could lead to a more uniform application of resource allocation policies.

DATA PROCESSING

See Abstract Nos. 1430, 1431, 1434, 1435, 1445, 1486, 1488

ORGANIZATION AND METHODS, WORK STUDY

See Abstract No. 1443

MEDICAL RECORDS

1431. HOLTHOFF, G. and MÖHR, J. R. Zur Bedeutung der klinischen Basisdokumentation für Information und Kommunikation im Krankenhaus. **[The significance of basic clinical documentation for information and communication in the hospital.]** *Krankenhausarzt*, Karlsruhe, 1975, June, vol. 48, no. 6, pp. 276-282.

At the Hanover Medical School Hospital selected information from medical records is coded and stored in a computer. The information is coded under four main heads: diagnosis; treatment; complications; and supplementary information. The methods used for checking and verifying the coded information are described in detail. This stored information makes it possible to select patients with, say, diagnoses from two different groups while excluding other diagnoses. As an example, a list of patients can be drawn up who suffer from hypertension and cardiac infarct but do not have diabetes. The full medical records of these patients can then be obtained and consulted.

1432. JONES, Sir F. A. **Trends in medical records.** *Community Health*, Bristol, 1975, July/Aug., vol. 7, no. 1, pp. 32-48.

This Harben Lecture to the Royal Institute of Public Health and Hygiene outlines the development of medical records and discusses: general principles of their organization; retention of notes; the clinical record and its use; problem-oriented medical records; the patient and the medical record; the confidentiality of medical records; computers and the medical record; medical records officers; and future trends.

1433. PRIOR, G. **A district case note system.** *Health and Social Service Journal*, London, 1975, Aug. 23, vol. 85, no. 4453, pp. 1855-1856.

This paper describes the development of an integrated district case note system for a hospital group following an O and M survey. Problems common to all medical records offices in the district are listed as 'key' or 'subsidiary'. The views of medical staff were sought at an early stage and agreement reached on a number of points. Identical district indexes are at present held in three hospitals; this will be reduced to two when two of the hospitals amalgamate at a later date. New index cards are produced in three colours, blue, pink and yellow, one colour for each of the hospitals. Coloured cards indicate completely up-to-date records containing all known details of a patient. The procedures followed are outlined.

1434. KNOX, E. G. **Security standards for computer medical records.** In: Probes for health: essays from the Health Services Research Centre, University of Birmingham, edited by Gordon McLachlan, pp. 157-177. London, Oxford University Press, for Nuffield Provincial Hospitals Trust, 1975, £3.00

The technical protection of computer medical records from unauthorized access can be reduced to the problems of encipherment and authorization. Secure encipherment can be accomplished by the appropriate use of non-constant keys generated jointly from within each record, from the record sequence number, from the file generation number and from authorization keys. Particular implementations are investigated as examples. A set of operational standards is derived and is offered for use as a reference standard.

1435. SMITH, M. E. and NEWCOMBE, H. B. **Methods for computer linkage of hospital admission-separation records into cumulative health histories.** *Methods of Information in Medicine*, Stuttgart, 1975, July, vol. 14, no. 3, pp. 118-125.

A study involving the design and testing of a computer system for linking hospital admission/separation records into longitudinal health histories is described. Although this study is based on a sample of the machine-readable files for a single Canadian province, essentially similar punch cards are prepared routinely across Canada as part of a system of universal health care. No data are included in the study that are not already recorded by provincial authorities. The essential step in the linkage is the recognition of whether two or more independently derived records relate to the same person. The methods are designed to extract and use the maximum amount of discriminating power inherent in items of personal identifying information, which may be incompletely reported or variant on some of the records. A statistical weighting system is used to indicate the degree of assurance that two records should or should not be linked. The computer successfully matched over 99 per cent of all pairs of

potentially linkable records, at a rate of 3,000 incoming records per minute. These methods are being used as part of an overall operation in which vital and health records are being integrated into individual and family health histories.

1436. MÖHR, J. R. and TRAMP, H. J. Ein mikrofilmorientiertes Zentralarchiv für Patientenakten in einem Grossklinikum. **[A microfilm-based central archive for patient records in a large hospital.]** *Krankenhausarzt*, Karlsruhe, 1975, June, vol. 48, no. 6, pp. 283-296.

The central medical records system for both in- and out-patients in use at the Hanover Medical School Hospital is described in detail and illustrated. Completed files first have important data added to the data bank and then go to the medical records department, where they are checked and a card filed under the date for microfilming. Files then go to the 'intermediate store' where they remain for one year before they are microfilmed. After a final check the original files are destroyed. It is calculated that for 3.6 million microfilmed files the total space required would be 876 sq.m. compared with 2,600 sq.m. for conventional storage: for eight million files the figures would be 1,014 and 5,700 sq.m. respectively. Although in the long-term there is only a small reduction in the total costs of a microfilm system as compared with conventional storage, efficiency is greatly increased.

1437. WHITE, K. J. C. **A records folder for microfilming.** *Health and Social Service Journal*, London, 1975, May 10, vol. 85, no. 4438, p. 1065.

A re-usable folder has been specially designed by Greater Glasgow District Health Board to separate medical records into categories and to prepare them for eventual microfilming. Records are divided into four sections: (i) primary and summary documents; (ii) investigation reports; (iii) clinical notes under specialty; and (iv) intermediate management notes. The front cover contains only the patient's name and number; when the papers are removed for microfilming this can be obliterated and the cover used again to a maximum of eight times. The covers cost 22p each giving a cost per use of 2.75p. The specification for the cover is given and its use is illustrated.

PUBLIC RELATIONS

See Abstract No. 1515

OTHER SPECIAL ASPECTS

See Abstract No. 1391

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 1426, 1441

1438. SNOOK, I. D. and SUDELL, W. B. **Financial ratio analysis: a quick simple test.** *Hospital Financial Management*, Chicago, 1975, June, vol. 29, no. 6, pp. 16-19.

Financial ratio analysis attempts to keep hospital administrators in touch with the

financial situation of their hospitals. This simple technique can provide a clearer view of the situation than detailed analysis of financial information, which in any case is often not done because of the time it takes. The balance sheet and the statement of revenue and expenses provide all necessary information, and ratios produced can be used in various ways: (i) to compare with previous or expected future ratios, to show improvement or deterioration; (ii) to compare with ratios for hospitals of similar size, or for industry; and (iii) to compare with established hospital standards. Different types of ratio are then used to demonstrate the practical applications of this analysis to various problems: (i) will the hospital be able to pay its current debts; (ii) is the hospital reasonably financed, and are long-term obligations likely to be met; (iii) is the cash flow adequate; and (iv) what is the hospital's operating rate of return. Computations for each ratio are given, for example for current ratio, which is calculated as $\frac{\text{current assets}}{\text{current liabilities}}$, or for the total debt/net worth ratio which is calculated as $\frac{\text{long term debt} + \text{current liabilities}}{\text{net worth}}$. Ratios are worthless by themselves, and should always be used to make the comparisons suggested above. A favourable financial ratio will not necessarily indicate a favourable financial position, whereas a poor financial ratio usually is an accurate indicator of financial problems.

1439. DAVIS, W. P. and others. **Risk management.** *Topics in Health Care Financing*, Rockville, Md., 1975, vol. 1, no. 4, pp. 1-106.

This paper is intended to serve as a basic guide for hospital executives to all forms of insurance cover. It covers: basic risk management philosophy; insuring buildings and contents; boiler and machinery insurance; business interruption coverage; construction considerations; crime risks; liability coverage; and employee benefit plans. A glossary of insurance terms is included.

1440. ANDERSON, O. W. **Blue Cross since 1929: accountability and the public trust.** Cambridge, Mass., Ballinger, 1975, viii, 118pp. £5.05

Although this study, prepared at the request of the Blue Cross Association, presents the factual history in brief, it is largely highly interpretative and is based on interviews with many of the founders of the Blue Cross system of hospital insurance.

HOSPITAL ACCOUNTING

1441. GOTTWALD, I. Teilkostenrechnung und flexible Budgetierung im Krankenhaus. **[Departmental costing and flexible budgeting in the hospital.]** *Krankenhaus Umschau*, Kulmbach, 1975, July, vol. 44, no. 7, pp. 553-558.

The new West German legislation on the financing of hospitals requires that there should be an adequate accounting system to enable comparative efficiency, and the cost per patient day, to be accurately determined. This makes it necessary for full cost accounting systems to be developed. This paper explains the basic requirements of such a system and sets out, with examples, the way calculations are to be made.

1442. GALLAGHER, R. **Case study: how one hospital system audited its blood units.** *Hospital Financial Management*, Chicago, 1975, June, vol. 29, no. 6, pp. 48-53.

This paper describes in detail the method developed at the Greenville (S.C.) Hospital System for auditing procedures for charging patients for blood they receive. This system has nine units spread over several cities, but managed centrally through a single accounting service. All the separate steps involved in the acquisition, storage and handling and use of blood were written down; gaps in the control procedure were then evident. In addition, flow charts were prepared, illustrating the whole procedure in order to simplify the material in the written reports. It is hoped that this auditing will help ensure accurate control over the use of blood and enable patients to be charged or credited accurately for blood units used. Flow charts illustrate the procedures in the blood donor room, blood bank, intra-hospital blood bank transfer and the scheme for recording patients' charges and credits.

SUPPLIES AND STORES

1443. SMITH, A. G., GREGORY, K. and MAGUIRE, J. D. **Operational research for the hospital supply service.** *Operational Research Quarterly*, Oxford, 1975, July, vol. 26, no. 2, pp. 375-388.

This paper describes two studies carried out by the Operational Research Executive of the National Coal Board for the Department of Health and Social Security. The first produced an easily workable stock control system and the second showed that greater centralization of stores would be more economical. Much effort was put into the implementation of these results, particularly to overcome local resistance, to the benefit of the Hospital Supply Service in terms of economy and efficiency.

ECONOMIC USE OF SUPPLIES, DISPOSABLES

See also Abstract No. 1454

1444. THOM, G. **Syringe control program reduces losses.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 12, pp. 95-97.

Strict syringe control is becoming increasingly necessary in hospitals for both economic and safety reasons. This is largely due to the predominance of disposable syringes which, due to their low replacement cost, tend to be treated with less care by some staff, so that they become lost or are stolen. This paper describes a control system in operation at St. Joseph Hospital, Joliet. Ill. Used syringes are exchanged on a one-for-one basis between the central sterile supply department and the head of each nursing team, which cares for about 20 patients. Careful inventories are kept to reduce losses and procedures have been adapted to the same purpose. As a result only about one per cent of syringes are now lost and there has been a 16.1 per cent decrease in the purchase of new syringes despite increased patient turnover. The proper handling of needles for syringes is emphasized on the hospital wards, and this too helps prevent losses. This programme has resulted both in financial savings and in a reduced risk that hospital syringes can be stolen and used for illegal purposes.

STORES

1445. ROKKONES, T. and others. Et EDB-system for styring av rekvisitaforbruk og lagerhold i helsesektoren. **[An EDP system for controlling the use and storage of supplies in the health service.]** *Sykehuset*, Oslo, 1975, vol. 38, no. 5, pp. 261-279.

In 1971 the Norwegian Department of Social Security published a new plan for registering stores, and since 1972 Ålesund County Hospital has operated a computer-controlled ordering and stock system. The relevant characteristics of an item on the shelf are its description (name), number of units, and unit price. Characteristics of interest to the user, however, comprise field of application: ward, laboratory, X-ray, etc. The stock number therefore comprises the first three items in clear, and the type of article and position in store in the form of a six-figure code. Input data for ward requisites, on removal from store, comprise departmental code, item stock number, number of items required, and date. The system at Ålesund currently covers some 2,000 postings a month, divided between ward, laboratory, radiography, stationery and cleaning accounts. Savings in manual routines and increased accuracy and speed pay for the system. Eight stores lists are reproduced as examples of the printout from the system.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

See also Abstract No. 1458

1446. RYDER, R. G. **Converting kitchen to the metric system.** *Hospitals*, Chicago, 1975, July 1, vol. 49, no. 13, pp. 45-47.

The change-over to the metric system in the United States will create problems for hospital caterers. This paper makes suggestions for the planning of the necessary changes and includes a number of conversion tables. To illustrate the changes which will be necessary it is useful to follow through from start to finish the preparation of an entree. Provision must be made for the adaptation of scales and an inexpensive electronic calculator will help in converting the quantities of recipe ingredients.

1447. Nieuw Régéthermic systeem. **[New Régéthermic system.]** *Voeding- en Huishoudgids*, Amsterdam, 1975, June 16, vol. 42, no. 508, pp. 298-300.

The Kortonjo home for the elderly at Eindhoven has rooms for 90 persons who need some help with daily living (all of whom are served with meals in their rooms) and flats for 300 persons able to look after themselves (about 100 of whom are served with meals). The Kortonjo central kitchen also supplies two other homes for the elderly in Eindhoven as well as a meals-on-wheels service. Altogether meals are supplied daily for 450 persons: this figure will rise to 700 when another home is completed. The central kitchen uses the new Régéthermic system. Meals are cooked by conventional methods on five days a week and the components are quickly cooled

and placed in cold storage. On the day of use portions are made up cold and transported to departmental kitchens where they are heated in special ovens. Each departmental kitchen has refrigerators for storing meals for week-end use.

1448. ZOLBER, K. **Producing meals without meat.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 12, pp. 81-86.

The increasing preference of many Americans for vegetarian meals requires dietitians to learn to prepare balanced vegetarian diets for hospital patients. Nutritional studies have shown that vegetarian diets, if well planned, can provide both the necessary calorie intake and nutritional elements for good health. These diets may be either lacto-ovo-vegetarian, including both dairy products and eggs, or pure vegetarian which excludes all foods of animal origin. Sample menus show how a vegetarian diet can be adapted to a general menu, calorie-controlled menu or sodium-controlled menu. The use of protein substitutes, particularly the use of soy proteins, is discussed. These meat alternates are becoming accepted rapidly, due to the growing world shortage of natural proteins from meat products, the increasing number of people adopting vegetarianism for health or cultural reasons, and the rising cost of meat products. The 516-bed Loma Linda (Calif.) University Medical Center serves balanced vegetarian diets to all staff and patients, although meat products are available on request. This scheme has proved successful and practical. Six vegetarian recipes are given, and there are thirteen references.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

1449. STEWART, J. S. S. **Water soluble laundry bag.** *Hospital Equipment & Supplies*, London, 1975, July, vol. 21, no. 7, p. 20.

Laundry bags made from water soluble plastic have been introduced to deal with the problem of foul and infected laundry and are said to reduce cross infection. The material used is polyvinyl alcohol (PVA). The use of the bags is outlined. Alginate stitched polyethylene or polyvinyl chloride (PVC) bags have been used in the past to deal with the same problem. Although they are considerably cheaper than water soluble PVA bags, the PVC bags are unsatisfactory in three respects: (i) they permit extensive leakage of airborne droplets and of fluid; (ii) they tear easily; and (iii) they have to be picked out of the washed laundry prior to the ironing process. Water soluble PVA bags at present cost nearly five times as much as PVC bags, but have several advantages which must be considered in the light of their higher price.

HOSPITAL LINEN AND TEXTILES

1450. RIZZO, D. R. **Nursing and the efficient use of linens.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 12, pp. 92-94.

Most administrative efforts to control linen costs have failed because of preoccupation with the cost of laundering linen, when the real savings are in controlling the unnecessary use of linen. Precise information systems need to be developed to reveal

the extent and whereabouts of this wastage; nursing staff must therefore become involved in the establishment of hospital linen policies. A linen utilization committee may then be established to consider how each item of linen is used, and subsequently to recommend future policy. This policy can then be implemented, with a feedback system of monitoring to the committee to ensure that policy decisions are being carried out. Future review meetings of the committee, held regularly, are important if the results of such feedback are to affect future decision-making. Examples of data from St. Barnardos Medical Center, Livingston, N.J., show: (i) the cost of linen per patient day; (ii) item usage and cost per patient day by medical area; and (iii) average monthly linen costs by ancillary areas, such as radiology.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

1451. FOORD, N. and LIDWELL, O. M. **Airborne infection in a fully air-conditioned hospital.** *Journal of Hygiene*, London, 1975, Aug., vol. 75, no. 1, pp. 15-56.

The investigations reported in the three parts of this paper examine the movement of air from room to room, the transport of airborne particles by this movement, the numbers of airborne particles carrying *Staphylococcus aureus* in the air of patient rooms in relation to the probable sources of the individual strains and the rates of nasal acquisition by patients of new strains of this organism from carriers nursed in different rooms or wards. Concentrations of a gas-tracer in rooms close to that in which it was being liberated were 1,000-fold less than that in the source room. This ratio fell to about 200-fold in the absence of any excess airflow through the doorways. Considerable dilution took place along the corridors so that the concentration fell by around 10-fold for every 10 m. of corridor. Experiments with gas and particle tracers showed that the degree of isolation between patient rooms for airborne particles was between four and 25 times greater than that for gaseous contamination, which reflects the actual transport of air between the rooms. A mathematical model is described for the transport of gaseous or airborne particulate material between rooms along ventilated passageways; experimental observations with it are also described.

1452. BARRY, M. J. H. **A two year survey of salmonella in a Dublin hospital.** *Journal of the Irish Medical Association*, Dublin, 1975, Jan. 11, vol. 68, no. 1, pp. 18-20.

A Salmonella screening programme is carried out for all newly admitted patients in a Dublin hospital. The methods used and the results over a two-year period are discussed and the results are also tabulated. Of the 7,556 (42 per cent) patients examined, 51 had positive cultures. It is suggested that this has prevented any serious Salmonella outbreak of the type that has occurred in the hospital earlier.

1453. ROSE, H. D. and BABCOCK, J. B. **Colonization of intensive care unit patients with Gram-negative bacilli.** *American Journal of Epidemiology*, Baltimore, 1975, June, vol. 101, no. 6, pp. 495-501.

In order to determine the frequency of pharyngeal, intestinal and tube site coloniza-

tion of intensive care patients with Gram-negative bacilli, 64 patients in a medical intensive care unit and 86 patients in a surgical unit were studied during a period of 13 weeks. The pharyngeal carrier rate in surgical patients increased by 34 strains, compared with 14 strains in medical patients: the intestinal rate increased by 35 strains as compared with 12. The increased carrier rate in surgical patients was related to the presence of indwelling tubes and the colonization of multiple sites in the same patient rather than to the use of antimicrobial drugs. Pharyngeal and rectal colonization in medical patients was related to antibiotic therapy. Indwelling tubes were a significant reservoir of bacilli in surgical patients.

SOURCES OF INFECTION

See Abstract No. 1451

PREVENTION AND CONTROL

See Abstract Nos. 1452, 1497

HYGIENE IN THE OPERATING THEATRE

1454. KENNEDY, M. H. F. **An investigation into the use of disposable patient drapes and tray wraps.** *ASSA Journal*, Matlock, 1975, June, vol. 3, no. 4, pp. 13-14.

A six-month trial to assess the use of disposable patient drapes and tray wraps is reported. Investigations were made in the general theatres of the Royal Infirmary and Royal Hospital for Sick Children, Edinburgh, and in the department of obstetric surgery at the Eastern General Hospital, Edinburgh, and the department of gynaecological surgery at the Victoria Hospital, Kirkcaldy. A preliminary trial showed that disposable drapes were generally received favourably by surgeons, but further investigation was needed in several other areas. Information was collected during the six-month trial on the storage, delivery, incineration, handling, sterilization and related durability of drapes and wraps; results of these investigations were favourable. However, results of questionnaires completed by surgeons and other theatre staff indicated that the disposable items presented several major problems of use: (i) drapes were too slippery and tended to slide off the patient; and (ii) drapes were too moisture repellent. Provided these problems of manufacture are overcome, the drapes should be more readily acceptable to surgeons, who found the present drapes acceptable as a back-up measure rather than as routine. The author recommends the use of disposable wraps, which are bacteriologically safer as tray wraps than linen items, and of drapes provided that certain improvements are made by manufacturers, and that prices remain reasonable.

1455. MARCKS, P. **The theatre sterile supply unit at the Nuffield Orthopaedic Centre, Oxford.** *ASSA Journal*, Matlock, 1975, June, vol. 3, no. 4, pp. 5-7.

The Joseph Trueta complex at the Nuffield Orthopaedic Centre consists of three operating theatres (two of which are clean air enclosures) and a 22-bed acute care ward. The theatre sterile supply unit (TSSU) provides an instrument tray service, plus linen and other materials. The aim has been to prepare trays containing the minimum

number of instruments and a range of supplementary packs. The tray system and the four stages of reprocessing are described and the work and training of the TSSU assistants are outlined.

STERILIZATION

See also Abstract No. 1455

1456. HAMEISTER, W. von. Äthylenoxidsterilisation: Gesundheitsschäden durch Äthylenoxid, das vom sterilisierten Gut retiniert wurde. **[Ethylene oxide sterilization: health risks from ethylene oxide retained by the sterilized material.]** *Bundesgesundheitsblatt*, Berlin, 1975, Aug. 8, vol. 18, no. 16, pp. 253-257; summary in English p. 256.

Medical instruments and supplies sterilized by ethylene oxide are liable to cause injuries to patients and staff by releasing ethylene oxide. Injuries include burns of the skin or mucous membranes from gloves, shoes, plasters and catheters and haemolysis from open-heart surgery with ethylene oxide sterilized heart-lung machines. To prevent such injuries correct degassing times are essential—two to three days at 56°C or one or two weeks at room temperature. Checks should also be made that continual gas exchange is complete. [This abstract has been prepared from an English summary of the paper.]

1457. AMERICAN HOSPITAL ASSOCIATION. **Readings in hospital central service.** Chicago, American Hospital Association, 1975, viii, 164pp. $13.50

This volume contains 35 papers, selected largely from the United States literature, on the role of and practices performed by central service staff in the preparation of medical/surgical supplies and equipment used in the care and treatment of patients. The papers are in three parts: (i) administrative aspects (management and supervision, training, legal considerations and standards, quality control); (ii) planning and operations (supply distribution and control, and waste disposal); and (iii) infection control.

1458. HEALTH AND SOCIAL SERVICE JOURNAL and HOSPITAL INTERNATIONAL. **CSSD and general services. Editor A. R. J. Wise.** (British Health Care and Technology) London, Health and Social Service Journal/Hospital International, 1975, 47pp. £1.70

This publication contains eight papers on planning, organization and distribution, production and special applications of central sterile supply. Also included are two papers on another area of hospital service in which centralization has now become possible—catering.

1459. JENSEN, N. **Challenges for central service and opportunities to keep costs down.** *Hospital Topics*, Neptune, N.J., 1975, May/June, vol. 53, no. 3, pp. 8, 10, 12, 16, 38, 48.

The author, a registered nurse and associate director of specialty services at St. Luke's Hospital, Denver, Colo., bases a series of questions for central service departments on experience at her own hospital. They relate to the need for co-operation

between hospitals, budgeting, work schedules, the use of staff to improve productivity, control of infection, purchasing, product evaluation and the legal implications of central services.

1460. PUGH, I. **Labelling systems in central sterile supply departments.** *ASSA Journal*, Matlock, 1975, June, vol. 3, no. 4, p. 12.

The problems of finding an improved method of labelling central sterile supply department packs are discussed. Methods considered included offset printing, which was too expensive and sophisticated, and a wide range of other methods such as hand-operated stencils which were almost as inadequate as the pen marking system already in use. A motorized machine to print on labels was chosen, the advantages being: (i) it will label anything from bags and paper wraps to boxes; (ii) labels require little storage space; and (iii) the machine can be set to print the number of labels required, without requiring constant operation. The only disadvantage was the cost of labels. The system works well, with several staff now trained as operators. Labels are printed in advance, and particular labels are always available owing to good store-keeping. Labels remain intact on all packs during the autoclave cycle.

1461. CAMPBELL, A. W. C. **Standards in surgical dressings.** *Health and Social Service Journal*, London, 1975, Aug. 2, vol. 85, no. 4450, pp. 1662-1663.

The need for co-ordination in buying surgical dressings throughout the National Health Service (NHS) is discussed. Research was carried out by the University of Wales Institute of Science and Technology, School of Pharmacy, into the evaluation of dressings and the preparation of standards and specifications for tenders. However little interest has been shown in this work although it is suggested that efficiency could rise and costs in the NHS be reduced if some rationalization were implemented.

AIR HYGIENE

See Abstract No. 1451

SAFETY MEASURES

FIRES AND FIRE PREVENTION

1462. DERN, G. Katastrophenschutz im Krankenhaus. **[The prevention of catastrophes in the hospital.]** *Krankenhaus Umschau*, Kulmbach, 1975, July, vol. 44, no. 7, pp. 559-562.

The author, who is chief administrator of a Coblenz hospital, describes the measures taken there to prevent fires and to deal with fire outbreaks. A booklet has been prepared and issued to departmental heads and others (70 in all) who are required to see that all their subordinate staff are aware of its contents. Some of the points made are as follows: smoking is not allowed in patients' rooms (there is a special day-room for smoking); staff should, where possible, remove electricity plugs from sockets when leaving; the sites of hand extinguishers and wall hydrants must be known to all; and

the three priorities in order of importance are rescue patients, to fight the fire, save equipment. The hospital has its own volunteer team of fire fighters who have special training. Three months after the fire plan came into operation there were three minor fires at the hospital: as a result of these experiences certain changes have been made to the fire prevention rules.

1463. WHITE, D. C. **Monitoring fire standards.** *Health and Social Service Journal*, London, 1975, June 28, vol. 85, no. 4445, pp. 1333.

This paper discusses ways of improving fire standards, particularly through adequate staff training. As guidance on building standards and other related fields has become more precise, so the standards applied by various fire authorities have become fewer, resulting in a disparity between standards in various services and institutions. Individuals in these services have assumed responsibility for staff training in fire standards, but such responsibility should lie with the area health authorities (AHAs), after consultation with local fire authorities and professional advisers. Monitoring, for example by simple questionnaires to health service staff, can provide the AHA with valuable feedback on the adequacy of its standards. Statistical methods for analysing the questionnaires, for example to show the percentage of total staff attending fire precaution lectures, are discussed.

PLANNING FOR MASS EMERGENCIES

1464. WHITTALL, K. **Major disaster procedure: the Birmingham bomb incidents.** *Nursing Mirror*, Sutton, Surrey, 1975, July 24, vol. 141, no. 4, pp. 46-49.

This paper describes how Birmingham Accident Hospital coped with the casualties from the Birmingham pub bombings on 21 November 1974. Of the 84 patients that came to the hospital, 26 were detained. Some fortunate coincidences resulted in the early availability of staff. Some of the difficulties which arose are listed and some of the lessons learnt are discussed.

1465. BRADLEY, J. E. A. **Nurse management during the bombing crisis in Birmingham.** *Nursing Times*, London, 1975, July 24, vol. 71, no. 30, pp. 1186-1188.

When bombs exploded in two pubs in Birmingham on the night of Thursday, 21 November 1974, Birmingham General Hospital cleared and put into use its 19-bed five-day surgical ward. This paper describes how the hospital coped with the demands made on it and lists those factors which impeded and those which helped in the care of the injured.

RADIATION HAZARDS

See also Abstract Nos. 1401, 1402

1466. WORLD HEALTH ORGANIZATION. **Manual on radiation protection in hospitals and general practice. Volume 2. Unsealed sources, by D. Frost and H. Jammett.** Geneva, World Health Organization, 1975, 113pp. Sw.fr.24.00

The second volume of this manual [see also *Hospital Abstracts*, Vol. 15, Abstract 100] reviews the radiation protection requirements in hospitals using unsealed radioactive sources and discusses the problems associated with the administration,

handling and transport of these sources. It also describes the design, construction and management of nuclear medicine departments and gives guidance on methods of reducing the exposure of the patients, staff and general public to a level consistent with sound medical practice, without impeding the acquisition of necessary medical information.

1467. WORLD HEALTH ORGANIZATION. **Manual of radiation protection in hospitals and general practice. Volume 3. X-ray diagnosis, by B. E. Keane and K. B. Tikhonov.** Geneva, World Health Organization, 1975, 96pp. Sw.fr.18.00

The third volume in this manual [see also *Hospital Abstracts*, Vol. 15, Abstracts 100 and 1466] deals with radiation protection in X-ray diagnosis. It discusses the organization of radiation protection, the choice of X-ray equipment, the siting and construction of diagnostic X-ray departments and the conduct of radiation surveys. Guidance is given on good practice throughout the book.

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 1470, 1499, 1500, 1505, 1523

1468. GAVIN, M. P. **Consumer services: inhospital reachout.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 14, pp. 65-67.

St. Anne's Hospital, Chicago, has established a consumer services department at no additional cost by combining the security department and information centre. Its purpose is to communicate clearly the hospital's interest and concern for the patient and his family by actively reaching out to provide a wide range of personal assistance. It is staffed by bright, articulate and enthusiastic consumer services representatives, most of whom hold college degrees in the behavioural sciences. Their functions and training are outlined.

HOSPITAL CARE

See also Abstract Nos. 1412, 1478, 1493, 1496, 1501, 1506, 1507, 1517, 1518, 1524

1469. ANGRIST, A. A. **Impersonal medical care: role of the pathologist in its evolution.** *American Journal of Clinical Pathology*, Philadelphia, 1975, July, vol. 64, no. 1, pp. 136-141.

An evaluation of the change in the former close relationship between the patient and his physician, and the contribution of the pathologist to its development, is presented. The effect of these changes on the interest in and care of the patient by all in the hospital is decried; the patient loses much. The problem of impersonal care now involves all hospital care and all fields of medicine. The decline of interest in the autopsy has done harm to pathology and the care of the patient; the autopsy is still an important quality control of such care. This change in the medical scene has

promoted the development of the employee status of the doctor, with its further loss of independence, individual interest and personalized care and has inevitably led to his loss of the protection of due process. Seven recommendations are made for recapturing the old one-to-one doctor-patient relationship, to yield a combination of tender loving and scientific care for the patient. An active method must be made to reverse the influence of some of the forces working to the disadvantage of doctor and patient in the changing medical scene.

1470. BIHLDORFF, J. P. **Personalized care assures patients' rights.** *Dimensions in Health Service*, Toronto, 1975, July, vol. 52, no. 7, pp. 36-39.

With the aim of ensuring more personal patient care three developments have taken place at McMaster University Medical Center, Hamilton, Ont. The patient care committee, a sub-committee of the medical advisory committee, now has both staff and consumers as members and concentrates more on the identification of patients' perceptions of their care. The 'psychosocial program' has as its main objective the development of the skills of professional staff in dealing with psychosocial problems met with in direct patient care and in staff interaction when caring for patients. 'Patient advocates' are a few volunteers who act as companions to patients, escort the patient or his family, or act as liaison between patient and staff. All three developments are being carefully evaluated.

1471. MATTHEWS, A. **Patient allocation: a review.** *Nursing Times*, London, 1975, July 10, vol. 71, no. 28, occasional papers pp. 65-68; July 17, vol. 71, no. 29, occasional papers pp. 69-72; July 24, vol. 71, no. 30, occasional papers pp. 73-76; July 31, vol. 71, no. 31, occasional papers pp. 77-79.

The allocation of nurses to patients rather than tasks is accepted by most nurses as being beneficial to patients and the nursing team. This method of ward organization has been adopted successfully in some hospitals, but problems have sometimes arisen with implementation. Patient allocation has been practised in some wards of the Royal Infirmary, Sheffield, for the past 5½ years; this review is based on four weeks spent in the wards of the surgical unit to assess the situation. The advantages to the patient and to the nursing staff and the disadvantages are discussed and the need for training in leadership is emphasized. Fourteen essential steps in implementation are presented: (i) belief in the principles by the whole of the nursing team; (ii) a high standard of ward organization; (iii) adequate equipment; (iv) consideration of the ward layout; (v) group patients together; (vi) consideration of the work load; (vii) allocation of nurses to patients; (viii) allocate nurses to the same patients for a certain length of time; (ix) ensure that nurses are aware of the patients allocated to them in advance; (x) there must be a co-ordinator; (xi) good communications; (xii) orientation of nursing staff; (xiii) encourage each nurse to look at the patient as a whole; and (xiv) maintain certain routines.

1472. MERCX, R. J. M. Teamverpleging betere verpleging? **[Is team nursing better nursing?]** *Ziekenhuis*, Utrecht, 1975, July 16, vol. 5, no. 14, pp. 342-346.

A research team from Eindhoven Technical College has carried out a project to determine the effect of team nursing on the therapeutic climate on the wards and on the motivation of the nurses. Four hospitals in Eindhoven, Leiden and Utrecht were

involved. Team nursing was introduced into certain wards and the results compared with those obtained from other wards using a traditional system. Preliminary results are set out in this paper and show that patients, nurses and doctors find improvements in communication, in the ward environment, and in the reduction of stress in patients. Of the nurses 85 per cent found themselves more involved under a team nursing system and 91 per cent preferred working on a ward where team nursing was practised.

1473. RHEINGOLD, J. J. **The patient 'dropout': what the physician can do.** *Hospital Medical Staff*, Chicago, 1975, vol. 4, no. 7, pp. 10-17.

Lack of compliance with physicians' instructions is common and the dropout rate from treatment programmes is amazingly high. The problem of noncompliance should be looked at from several viewpoints: the patient-physician milieu; effects of physician's attitude; effective communication—verbal and non-verbal; importance of written instructions; need for motivation; and education for compliance. In summary, a good patient-physician relationship, better communication, greater motivation and more effective education will lead to improved compliance.

1474. KEMP, I. W. **The value of the day bed unit in general hospital practice.** (Scottish Health Service Studies, 32) Edinburgh, Scottish Home and Health Department, 1975, xii, 100pp.

The evolution of short-stay care to the present day bed system is reviewed. The range of procedures, the organization and standards of the various published systems of short-stay care are studied wherever they were relevant to day bed care. The work of modern day bed units is then presented, with particular reference to work carried out in the day bed unit of a Scottish district general hospital. An appraisal of the organization and facilities is carried out and the range and type of procedures studied and compared with those conducted in other day bed units. The demographic and social characteristics of the patients and their reaction to the system are considered. An attempt is made to identify groups of patients who might require special care and facilities. With this information the requirements necessary to meet a satisfactory standard of care for procedures currently carried out are suggested. Finally the requirements for possible future extensions in the range of care provided in day units are discussed.

1475. GONNELLA, J. S. and GORAN, M. J. **Quality of patient care—a measurement of change: the staging concept.** *Medical Care*, Philadelphia, 1975, June, vol. 13, no. 6, pp. 467-473.

In order to assess the quality of medical care, the health of the patient before and after medical care needs to be known. A change in the status of the patient between these two points is a reflection of the care received. The staging concept provides a system which classifies patients with similar medical conditions into clusters useful for patient care evaluation. The method defines three levels of severity: (i) disease with no complications or problem of minimal severity: (ii) disease with local complications or problem of moderate severity; and (iii) disease with systemic complications or a problem of a serious nature. Examples of the method are given and the value of the approach is described for the evaluation of in- and out-patients.

HOME CARE, AFTER-CARE

See Abstract Nos. 1519, 1520

SPECIAL DEPARTMENTS

WARDS

See Abstract No. 1412

OPERATING SUITES

See also Abstract Nos. 1454, 1455

1476. ANDERSON, G. **How others do it: Meridian Park Hospital uses new concepts for flexibility.** *Hospital Topics*, Neptune, N.J., 1975, May/June, vol. 53, no. 3, pp. 41-43.

Two features of the operating suite at Meridian Park Hospital, Tualatin, Oreg., neither of which had previously been used in the Pacific Northwest of the United States, are the Swedish Kifa tables and the Co/Struc supplies system. Kifa operating tables have a variety of tops to suit particular operations and patients are transferred to the selected table top outside the theatre: the system provides the surgeon with a stable, uncluttered platform. The Co/Struc system provides a system of trolleys which load the requisite items for each operation scheduled in the central area immediately below the theatre and bring them up by special lift. After operations the trolleys are loaded with soiled supplies and go to the decontamination area where instruments and trolleys are cleaned and sterilized and waste disposed of. The two systems together ensure minimal turnover time and have proved to be orderly and efficient.

ANAESTHESIA

See Abstract No. 1510

PHARMACY

See also Abstract No. 1403

1477. KAWADA, T., WOLF, W. and MOCHIZUKI, D. **Hospital radiopharmacy training program.** *American Journal of Hospital Pharmacy*, Washington, 1975, June, vol. 32, no. 6, pp. 587-589.

The increasing use of radiopharmaceuticals calls for special skills which are not adequately provided for at university level. Pharmacists already employed in hospitals should take the initiative in providing radiopharmaceutical services: by self-study and practical experience in the nuclear medicine service the hospital pharmacist should

be able to assist in the preparation and distribution of radioactive drugs. An outline is given of a 30-day hospital-based radiopharmacy training programme intended to give the hospital pharmacist the necessary information.

1478. MIKEAL, R. L. and others. **Quality of pharmaceutical care in hospitals.** *American Journal of Hospital Pharmacy*, Washington, 1975, June, vol. 32, no. 6, pp. 567-574.

With the object of measuring the quality of pharmaceutical services to hospital in-patients, interviews were conducted with pharmacists (or administrators responsible for pharmacy services) at 112 hospitals of varying size and type. Conclusions were as follows: (i) the quality of 'structural' components is related to the number of beds and not to the hospital's rural or urban location; (ii) hospitals with 100 or more beds or located in an urban area have a higher 'process' quality than those with less than 100 beds or located in a rural area; and (iii) hospitals with a full-time pharmacist have a higher quality of care than those without. Appendices give the questionnaire used at interviews, the scoring of interview data, and the analysis of data.

1479. REINDERS, T. P. and others. **Pharmacist's role in management of hypertensive patients in an ambulatory care clinic.** *American Journal of Hospital Pharmacy*, Washington, 1975, June, vol. 32, no. 6, pp. 590-594.

A system for monitoring hypertension in ambulatory patients, developed by a physician and a pharmacist, is described. The physician provides initial patient assessment and treatment and the pharmacist provides counselling and education. There is a follow-up by the pharmacist every one to two months and by the physician every four to six months. In the first four months of operation 28 of 75 newly diagnosed hypertension patients were referred to the pharmacist by the physician for follow up.

1480. HARELIK, J. H. and others. **Pharmacist and physician evaluation of drug information sources.** *American Journal of Hospital Pharmacy*, Washington, 1975, June, vol. 32, no. 6, pp. 594-597.

Of a 10 per cent random sample in Tennessee who were sent questionnaires on the evaluation of drug information sources 190 physicians and 102 pharmacists responded. They were asked how they rated six different sources (journals, textbooks, physicians, pharmacists, the *Physicians Desk Reference* (PDR), and manufacturers' representatives) in nine different categories. The results are set out in tables and show that physicians rated journals and the PDR as consistently good and pharmacists as poor; pharmacists rated textbooks as good and physicians as poor for some categories. Both groups found the information in certain categories to be inadequate.

1481. PROSNICK, J. J. **Evaluation of a hospital controlled substances distribution system.** *American Journal of Hospital Pharmacy*, Washington, 1975, June, vol. 32, no. 6, pp. 606-609.

A study carried out at the 500-bed St. Mary's Hospital, Minneapolis, had three objectives: (i) to determine time requirements of pharmacy and nursing staff for the distribution and control of restricted drugs; (ii) to examine and identify drug control procedures carried out to ensure accountability; and (iii) to identify income and expenses involved in distribution and control. It was found that distribution and

control took 930 hours of pharmacy staff time a year and, on one ward, 970 hours of nurses' time. The system appears to offer full accountability of the use of restricted drugs. Details of the various costs and charges are set out.

1482. BERGQUIST, S. C. **Patient profile card used in clinical pharmacy services.** *American Journal of Hospital Pharmacy*, Washington, 1975, June, vol. 32, no. 6, pp. 597-598.

The patient profile card which has been in use in the pharmacy of the University of Iowa Hospitals and Clinics since July 1974 enables patient data and concomitant drug therapy to be organized for patient monitoring purposes. The form measures five by seven inches and is printed on both sides of an index card. There is space for the following information: basic patient data; allergies; problems; drug therapy; communications with doctors; laboratory tests; and medication before admission. The form has the advantages of being complete, flexible, portable, and of providing a documentation of services. A specimen form is reproduced in the paper.

1483. GUMBHIR, A. K. and BROWN, W. M. **Cost-benefit analysis of unit dose drug distribution systems: a conceptual approach.** *Hospital Topics*, Neptune, N.J., 1975, May/June, vol. 53, no. 3, pp. 35-37.

The authors present a hypothetical model for measuring the costs and the benefits of a unit dose drug distribution system. The basic concept of cost-benefit analysis is given in detail in order to show the steps necessary for measuring costs and benefits. A distinction is drawn between direct benefits (e.g. labour saving, reductions in stock, less wastage) and indirect benefits (e.g. fewer medication errors, savings in overhead costs of pharmacy departments). A study has shown that in the long run the benefits of unit dose distribution exceed the costs.

1484. WYATT, B. K. **Development of an IV admixture program in a 167-bed hospital.** *Hospital Pharmacy*, Philadelphia, 1975, June, vol. 10, no. 6, pp. 225-229.

Before an intravenous (IV) admixture service was established at Lawrence (Kans.) Memorial Hospital, decisions had to be made on areas of responsibility, increase in hours and staff, and delivery. After studying services in other hospitals it was decided that the most important items necessary for an efficient, smooth operating programme were development of proper methods to receive the IV orders from the wards and efficient profile systems, scheduling procedures, labelling procedures and charging system. The procedures developed are outlined and the forms used are reproduced. The first six months of operation have proved the system to be efficient in terms of cost and to have resulted in more uniform and rational procedures for IV therapy.

LABORATORIES

See also Abstract Nos. 1394-1396, 1418, 1469

1485. KREIG, A. F., GAMBINO, R. and GALEN, R. S. **Why are clinical laboratory tests performed? When are they valid?** *Journal of the American Medical Association*, Chicago, 1975, July 7, vol. 233, no. 1, pp. 76-78.

Increasing numbers of laboratory tests do not necessarily represent progress towards

better health. Some tests appear to be done primarily because they are available. In all cases the usefulness of a positive test result will vary with the sensitivity and specificity of the test, and with the incidence of the disease in the population tested. Before ordering a laboratory test, physicians should: (i) attempt to determine whether test sensitivity, specificity and predictive value are adequate to provide clinically useful information; and (ii) ask themselves whether the results will change the diagnosis, prognosis or therapy, whether the results will provide a better understanding of the disease process in the particular patient, and what he is looking for and why and whether the patient will benefit if he finds it.

1486. FARRAR, J. L. and others. **Use of a computer for producing microbiological reports and for data storage and processing.** *Journal of Clinical Pathology*, London, 1975, July, vol. 28, no. 7, pp. 580-586.

The University Hospital of Wales, Cardiff, uses an ICL 1904S computer, sited at the Welsh Technical Services Computer Centre, Whitchurch, about two miles away, for the storage, retrieval and analysis of microbiological laboratory results and for the reproduction of reports on an ICL 7020 terminal. The system, which has been in operation for over a year, involves the use of a modified conventional NCR request form. The form, examples of which are reproduced, was designed for use by all hospitals in the South Glamorgan Area Health Authority and thus can be used for manual reporting in those hospitals that do not have a computer terminal or by the University of Wales Hospital should a computer breakdown occur.

1487. HAECKEL, R. **Analysis of various cost factors of automated analytical systems in clinical chemistry.** *Medical Progress through Technology*, Berlin, 1975, vol. 3, no. 2, pp. 65-71.

The concept of critical batch size is established as a measure to determine whether automation of laboratory procedures should be introduced. The factors affecting it, frequency of analysis, service/maintenance costs and the lifetime of the equipment, are discussed and an example is worked.

BLOOD TRANSFUSION DEPARTMENT

See Abstract No. 1442

DIAGNOSTIC X-RAY DEPARTMENT

See Abstract No. 1467

RADIOISOTOPE DEPARTMENT

See Abstract No. 1466

REHABILITATION

See Abstract Nos. 1521, 1522

OCCUPATIONAL THERAPY DEPARTMENT

See also Abstract No. 1522

1488. ENGLISH, C. B. **Computers and occupational therapy.** *American Journal of Occupational Therapy*, Rockville, Md., 1975, Jan., vol. 29, no. 1, pp. 43-47.

The benefits and applications of computers in occupational therapy are discussed. Potential problems and advantages of computer use are compared and examples of existing systems are cited. Methods for successfully introducing computers are discussed.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 1388

1489. GERBERSHAGEN, H. U. and others. **The pain clinic: an interdisciplinary team approach to the problem of pain.** *British Journal of Anaesthesia*, London, 1975, April, vol. 47, no. 4, pp. 526-529.

The development of interdisciplinary pain clinics is discussed, their organization and staffing is described and an outline plan for a pain clinic is presented. It is emphasized that interdisciplinary pain clinics are the best means of medical care for patients suffering from chronic pain.

INTENSIVE CARE UNITS

See also Abstract No. 1453

1490. PETTY, T. L. and others. **Intensive respiratory care unit: review of ten years' experience.** *Journal of the American Medical Association*, Chicago, 1975, July 7, vol. 233, no. 1, pp. 34-37.

A respiratory care unit was established at the University of Colorado Medical Center in 1964 for the purpose of providing intensive care for all adult medical and surgical patients with acute respiratory failure. The unit provides a designated area for the treatment of both medical and surgical patients, a supportive laboratory with necessary equipment, modern ventilators and, most important, a staff of physicians, nurses, therapists, and technicians to provide consultation and technical assistance to primary physicians of the medical and surgical services. During 10 years, 18,077 consecutive patients received ventilatory support for 24 hours or more; the overall survival rate including all patients was 75.2 per cent. This system of intensive respiratory care is flexible and applicable to general hospitals that treat large numbers of patients with acute respiratory failure.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 1474, 1479, 1498, 1523

1491. METSCH, J. M. and TILLEY, F. N. **Ambulatory care: planning integrated, comprehensive services.** *Hospitals*, Chicago, 1975, June 16, vol. 49, no. 12, pp. 63-65.

This paper discusses the theory of functional programming currently being planned for ambulatory care services at the future Woodhull Medical Center. The Center is planned to replace Greenpoint Hospital, part of the New York City Health and Hospitals Corporation, and will serve a population of half a million. Out-patient services at Greenpoint at present emphasize responding to the expressed needs of the community, and this results in high use of the various emergency departments. Functional programming is a systems approach which will enable integrated and comprehensive services to be provided in the light of clear, written objectives which are planned for the Center as a whole. The clear definition of a 'primary care concept', relating to the patient's entrance into the ambulatory care system and his subsequent treatment, has allowed components of this subsequent treatment system to be clearly defined and an integrated treatment system to be planned. The treatment system involves general management groups which will emphasize family-centred care and provide comprehensive services including medical checks and direct patient referral to specialist services such as the social services, dental care and nutritional guidance. Emergency services are no longer seen as an alternative way of delivering medical services, but as one way in which the patient can enter the primary care delivery system.

1492. ACTON, J. P. **Nonmonetary factors in the demand for medical services: some empirical evidence.** *Journal of Political Economy*, Chicago, 1975, June, vol. 83, no. 3, pp. 595-614.

A survey of 2,600 users of free medical services in New York City out-patient departments shows that travel distances can take the place of charges in limiting the demand for services. This finding has a number of policy implications; two of the most important are discussed here. The first is that the use of services by selected populations could be increased by improving transport, by siting clinics nearer, or by establishing satellite clinics round central facilities. The second is concerned with subsidizing the provision of services through social insurance, the direct provision of care in neighbourhood health centres, or income subsidies.

1493. SPECTOR, R. and others. **Medical care by nurses in an internal medicine clinic: analysis of quality and its cost.** *Journal of the American Medical Association*, Chicago, 1975, June 23, vol. 232, no. 12, pp. 1234-1237.

The quality and cost of medical care provided by specially trained nurses in an internal medicine clinic was evaluated retrospectively during a three-month period. Clinic physicians referred patients to these nurses when they believed that the nurse

could contribute to the patient's overall health care. Nurse care was judged to be adequate in dealing with 98 per cent of old problems (defined by the physician) and 85 per cent of new problems (detected by the nurse). Scheduled visits to the physician and unscheduled visits decreased significantly during the period of nurse care compared with a control period, but the overall cost of health care was increased significantly during the nurse care period because of a disproportionate increase in visits to the nurse. It is concluded that nurse care was feasible and of adequate quality, but was not cost-effective.

CASUALTY AND ACCIDENT

1494. WALLER, J. A. **Categorizing hospital emergency departments in rural areas.** *Clinical Medicine*, Northfield, Ill., 1975, Feb., vol. 82, no. 2, pp. 41, 44-47.

Areas considered as 'rural' contain populations of less than 30,000 to 40,000 people or have population densities of less than 50 people per sq. mile. The author describes the modifications made in Vermont to the recently published American Medical Association system of categorization. Minimum care expected at all times is resuscitation and stabilization in face of dangerous illness or injury, the criteria including: (i) a two-way radio system; (ii) availability of skilled nursing and medical staff and minimal equipment; (iii) an active emergency department committee to make recommendations to the hospital governing body; (iv) clear identification of the location of the department; and (v) information on types of patients dealt with and the outcome. Improvements in Vermont have included: (i) the establishment of 13 ambulance districts and training for ambulance staff; (ii) in-service training for nursing and medical staff; and (iii) discussion on two- or three-bed unit inclusion in the categorization scheme. The last was considered inadvisable.

1495. WALKER, L. L. **Why do patients use the emergency room.** *Hospital Topics*, Neptune, N.J., 1975, May/June, vol. 53, no. 3, pp. 19-21, 45.

The attitudes of patients attending the casualty department of a 200-bed community hospital in Oklahoma City were studied by interviewing 542 patients over a 28-day period. The results are set out in a series of tables and show that patients are using the casualty department for both urgent and non-urgent care although their attitude to the health care system is that the private doctor's surgery should be the main source of primary care. The question is raised as to whether patients use casualty departments because they have no other point of entry into the health care system.

1496. HARRIES, A. I. and WEST, R. R. **Accidents and their management at two casualty units.** *Journal of the Society of Occupational Medicine*, Bristol, 1975, July, vol. 25, no. 3, pp. 95-98.

The nature and management of accidents at a hospital casualty department and at the medical centre of a large factory were studied. Analysis shows that a high proportion of the referrals to both units were for the treatment of minor injuries. Such injuries create an excessive burden on hospital doctors, who are required to see each person attending the unit, although such injuries often do not require the skill and knowledge of a doctor. Treatment by qualified nurses at the factory medical centre eases the load

on medical staff. Consideration might be given to the establishment of minor injury units, staffed by trained nurses, within hospital casualty units, at health centres and in the vicinity of large factories.

DAY HOSPITALS

See Abstract No. 1525

CHEST

See Abstract No. 1490

INFECTIOUS DISEASES AND ISOLATION

1497. DIETRICH, M., ABT, C. and PFLIEGER, H. **Experiences with a new isolated bed system in the treatment of acute leukemia.** *Medical Progress through Technology*, Berlin, 1975, vol. 3, no. 2, pp. 85-89.

A bed system enclosed in a plastic tent has been designed at the University of Ulm to provide an infection-free environment; it has been in use there for four years. The technical details are given and its use is described. It appears to be an improvement on other isolation systems as it provides greater patient comfort and facilitates medical care. A 71 per cent remission rate was obtained by leukaemia and other high infection susceptibility patients using it compared to a 41 per cent remission rate by similar patients receiving similar care but on the wards.

CHILDREN

See also Abstract No. 1524

1498. RUSSO, R. M. and others. **Triage abilities of nurse practitioner vs pediatrician.** *American Journal of Diseases of Children*, Chicago, 1975, June, vol. 129, no. 6, pp. 673-675.

A random selection of 113 children presenting at the paediatric out-patient department of Kings County Hospital-Downstate Medical Center, Brooklyn, N.Y., were examined separately and independently by a qualified paediatric nurse practitioner (PNP) and a paediatrician. The results of the two examinations were evaluated and compared on the following six points: identification of the basic problem; classification by severity of illness; initiation of treatment; requesting X-rays or laboratory tests; taking body temperatures, as necessary; and disposal. The PNPs' evaluations showed an 84 per cent agreement with those of the paediatricians and there were only two significant differences: PNPs recorded patients' problems more diligently and paediatricians were better at determining the need for X-rays and laboratory tests. The conclusion is that paediatricians' time could be saved by making more use of the nurses.

1499. CLAXTON, I. **Nurses explain hospitals to children.** *Hospitals*, Chicago, 1975, July 1, vol. 49, no. 13, pp. 41-42.

A project called the Children's Hospital Orientation Program (CHOP) was started in 1972 in St. Paul, Minn. Nurses from the Children's Hospital have been visiting schools, telling children what happens in a hospital and explaining procedures so that they will not be afraid and will understand what is happening if they ever have to be admitted. Later the scheme was extended and now incorporates the following features: a talking teddy bear programmed with tape cassettes to talk to children aged five to seven; hospital tours for older children; and talks to parent-teacher associations and other parents' groups. During its first full year CHOP spoke to 19,205 children in 109 schools and took 4,164 children on tours of the hospital. There has been an enthusiastic response from children, parents, teachers and school nurses.

1500. DOUGLAS, J. W. B. **Early hospital admissions and later disturbances of behaviour and learning.** *Developmental Medicine and Child Neurology*, Tadworth, 1975, Aug., vol. 17, no. 4, pp. 456-480.

The children in this study comprise all those born to non-manual and agricultural workers, and a random one-in-four sample of those born to the rest of the manual workers, in the whole of Great Britain during the first week of March 1946. In the succeeding 26 years they have been contacted every two years, or more frequently, and among the information collected was a complete account of hospital admissions and details of educational progress, behaviour in and out of school, parental attitudes and home circumstances. The study provides strong and unexpected evidence that one admission to hospital of more than a week's duration or repeated admissions before the age of five years (in particular between six months and four years) are associated with an increased risk of behaviour distrubance and poor reading in adolescence. Thought should be given to how far home care can be safely substituted for hospital care for small children, especially those already under stress.

1501. KOTTGEN, U. Verstärkte Betreuung behinderter Kinder. **[Effective care of handicapped children.]** *Das Öffentliche Gesundheitswesen*, Stuttgart, 1975, June, vol. 37, no. 6, pp. 306-310; summary in English, p. 306.

The increasing control and more effective treatment of children's diseases, coupled with the decreasing birth-rate, has resulted in considerable underuse of children's departments. The plea is made in this paper for this spare capacity to be used for the care and treatment of handicapped children. There should be both in- and out-patient facilities and provision should be made for mothers to be admitted with their children or to be housed near the hospital. It is also important that care and treatment should be on a multidisciplinary basis with paramedical staff playing an equal role with doctors. Education of handicapped children should start at the earliest possible age and should not be completely separated from other forms of treatment.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1414, 1525

1502. LEPINE, A. **Linking the services.** *Age Concern Today*, London, 1975, no. 14, pp. 23-25.

The author has worked as a medical adviser to a local authority social services

department, as a clinical assistant in a geriatric hospital, and in local authority homes for the elderly. She draws on her experience to discuss the links which can and should be developed between these services and outlines the different type of care which she believes should be provided. Massive increases are needed in domiciliary services, sheltered housing, work centres and day care, with a far greater variety of provision within the local authority and hospital spheres. An effective socio-medical screening service is needed to make the best use of scarce accommodation.

1503. WILLARD, H. N. NOVAJOSKY, M. and AMDUR, S. **Improving hospital-nurse home relationships.** *Hospitals*, Chicago, 1975, July 16, vol. 49, no. 14, pp. 57-59, 62.

In 1967 Yale-New Haven (Conn.) Hospital initiated a continuing care programme with responsibility for case finding and discharge planning throughout the hospital, development of a 24-bed unit for immediate post-acute care of patients who still required hospital services, working with community agencies and improved liaison with nursing homes. Following discussions with nursing home staffs, the following steps have been taken to improve working relationships: (i) staff visit nursing homes to gain first hand knowledge of facilities and services so that more appropriate referral of patients can be made; (ii) staff are available to nursing homes to discuss areas of mutual interest and attempt to set up appropriate programmes of action; and (iii) hospital and nursing home staff co-operate in joint educational programmes and exchange of staff in order to improve the level of patient care.

1504. CLARK, N. M. **Planning effective education in the long term care facility.** *Journal of Long Term Care Administration*, Washington, 1975, vol. 3, no. 2, pp. 44-53.

In planning staff training programmes in long-stay facilities, there are five steps which must be taken: (i) identification of the situation to be improved; (ii) determination of the staff to be trained; (iii) determination of the educational objectives; (iv) design of learning experiences; and (v) evaluation. Each step must be taken considering the organization, family and community influences on participants. Carefully planned training programmes which recognize these influences and their impact on the delivery of health care are important administrative tools for improving service to the sick aged.

1505. INCANI, A. G., SEWARD, B. L. and SIGLER, J. E. **Coordinated activity programs for the aged: a how-to-do-it manual.** Chicago, American Hospital Association, 1975, viii, 158pp.

This manual is based upon the activity programme developed at Swope Ridge Health Care Center, Kansas City, Mo., a designated long-stay care training centre. It covers: the case for co-ordinated activities; organizational considerations; administration; therapeutic specialties; and volunteer programme. Brief details are then given on 24 types of activities.

1506. SANFORD, J. R. A. **Tolerance of debility in elderly dependants by supporters at home: its significance for hospital practice.** *British Medical Journal*, London, 1975, Aug. 23, vol. iii, pp. 471-473.

Some 12 per cent of geriatric admissions to University College Hospital, London, and Whittington Hospital, are for patients whose relatives or friends can no longer

cope with them at home. The person principally involved with home support was interviewed in 50 such cases. The causes of inability to cope were identified on a quantitative and qualitative basis. The supporters were asked to assess which of the problems identified would have to be alleviated to restore a tolerable situation at home; 46 (92 per cent) were able to do so. Identification of the 'alleviation factors' forms a therapeutic and prognostic guideline in this type of admission and may have far-reaching social and economic implications.

1507. LONGEST, B. B., and others. **An empirical analysis of the relationship of selected structural factors to quality of patient care in nursing homes.** *Journal of Long Term Care Administration*, Washington, 1975, vol. 3, no. 2, pp. 16-26.

Fifteen nursing homes in Georgia providing skilled care were ranked on the basis of the quality of care they provided and then ranked on the basis of several structural characteristics. It was found that: (i) quality of care was not related to the level of charges to patients; (ii) hours of professional service do not necessarily produce the highest quality of care; and (iii) size does not seem to be a good indicator of quality of care. The implications of the study are discussed.

CANCER

See Abstract No. 1411

NEUROLOGY AND NEUROSURGERY

1508. JENNETT, B. **Who cares for head injuries?** *British Medical Journal*, London, 1975, Aug. 2, vol. iii, pp. 267-270.

Patterns of management for head injury in the acute and late stages are reviewed in respect of both mild and severe injuries. Because so many disciplines are involved, continuity of care is often difficult to achieve; and no one discipline is concerned with planning for the care of head injuries in a strategic way. The needs of head-injured patients are defined and suggestions made for improving care by the reorganization of existing facilities. What is most needed is to concentrate on patients with head injuries both in the acute and in the late stages. Only then can medical, nursing and paramedical staff become skilled in dealing with the many problems which such patients present.

ORTHOPAEDICS

See also Abstract No. 1455

1509. MORRIS, J. R. W. **Analysis of services available for total joint replacement surgery.** *British Medical Journal*, London, 1975, Aug. 2, vol. iii, pp. 290-291.

The use of total joint replacement surgery has been growing in a manner which is poorly understood. This growth is more likely to be limited by saturation of the available services than by a limit to the number of people who could benefit from the treatment. Present indications are that services will be saturated in 1974 or 1975,

after which 4,600 extra people a year will go on to the waiting lists if demand continues as at present. Stability can then be achieved by either raising the clinical criteria for surgical treatment or making about 300 extra orthopaedic beds available each year, buffered from the demands for acute trauma admissions.

SURGERY

See Abstract Nos. 1430, 1474

MATERNITY

1510. OPIT, L. J. and CRAWFORD, J. S. **Obstetric anaesthesia: a regional audit.** In: Probes for health: essays from the Health Services Research Centre, University of Birmingham, edited by Gordon McLachlan, pp. 45-68. London, Oxford University Press, for Nuffield Provincial Hospitals Trust, 1975, £3.00

This paper presents some results of a survey designed to provide detailed factual information from each maternity unit in the Birmingham region about: (i) the operational characteristics of the obstetric anaesthetic work load, particularly in relation to the availability of staff, time and notice of services, type of assistance available, and obstetric complexity; (ii) standards of pre-anaesthetic preparation and care; (iii) anaesthetic techniques; and (iv) technical difficulties and serious early anaesthetic mortality affecting the mother. A number of observations are made on the organization of maternity beds, staffing and staff training.

OPHTHALMOLOGY

1511. OPIT, L. J. and DAY, P. R. **Regional hospital ophthalmic services. Suggestions for the comparison of available resources: their utilization, productivity, and outcome.** In: Probes for health: essays from the Health Services Research Centre, University of Birmingham, edited by Gordon McLachlan, pp. 85-105. London, Oxford University Press, for Nuffield Provincial Hospitals Trust, 1975, £3.00

This paper attempts to compare the resources available in each region specifically for the treatment of ophthalmic disease and to suggest some simple comparative indices of utilization and productivity. The findings indicate that some regions, in spite of a relative shortage of ophthalmic clinicians, have obtained a high productivity, possibly by a more extensive employment of paramedical staff. This may have arisen because the heavy case-load of optical and orthoptic work has been met by the paramedical staff, enabling the expensive medical skills to be reserved for clinical work appropriate to those skills. If this is so, and the practice does not entail lowering of clinical standards, then the resources needed to meet present and even future loads, may be achieved in some regions by a modest additional investment in paramedical staff.

PSYCHIATRY

See also Abstract No. 1413

1512. ARNHOFF, F. N. **Social consequences of policy toward mental illness: indiscriminate shifts from hospital to community treatment may incur high social costs.** *Science*, Washington, 1975, June 27, vol. 188, no. 4195, pp. 1277-1281.

The current tendency to treat more and more patients with major psychosis within the community rather than in psychiatric hospitals, or to make the stay in hospital as short as possible, raises problems which have not yet been adequately investigated. For example, what is the effect on children of psychotic parents remaining in the family? This paper discusses the relations between hospital and community care and reviews published work on the subject (with 50 references in the literature).

1513. UNITED STATES. NATIONAL INSTITUTE OF MENTAL HEALTH. **Psychiatric bed needs: an analytical review, by Leona L. Bachrach.** (DHEW Publication No. (ADM) 75-205) Washington, U.S. Government Printing Office, 1975, iv, 16pp.

The current literature dealing with the determination of the number of psychiatric beds required by a population group is reviewed and a number of conclusions are drawn. It would appear that an exact formula is far less important for effective planning than is a grasp of the many factors that go into the determination of the psychiatric bed needs in a given community. Nevertheless, many planners feel that it is necessary to have such formulae. In addition to a list of 33 references to the literature, there is an annotated bibliography with 29 entries.

1514. PALLIS, D. J., LANGLEY, A. M. and BIRTCHNELL, J. **Excessive use of psychiatric services by suicidal patients.** *British Medical Journal*, London, 1975, July 26, vol. iii, pp. 216-218.

A subsample of case records from the north-east Scotland psychiatric case register produced: (i) 136 patients who had attempted suicide on one or more occasions; (ii) 147 patients who had expressed or admitted to suicidal ideas without making a suicide attempt; and (iii) 233 patients with no record of suicide attempt or communication. Further examination of the records showed that suicidal patients spent significantly more days in hospital and made more out-patient attendances; suicide attemptors in particular needed not only more emergency consultations but also spent more days in hospital. A more economical yet more effective treatment policy for the suicidal patient is needed.

1515. HEADLAND, R. H. **Forging links.** *Nursing Times*, London, 1975, Aug. 7, vol. 71, no. 32, pp. 1266-1267.

Some four years ago, the nursing staff at St. George's [psychiatric] Hospital, Morpeth, formed groups known as 'Forging Links' teams, who were prepared to go out and meet various organizations to explain to the public what really happens inside a modern psychiatric hospital. To assist them a commercially available film was purchased. As many people asked if it was St. George's Hospital in the film, it was decided to make one of the hospital. This paper describes how the film was made for around £150, all labour being on a voluntary basis.

1516. MANN, S. and CREE, W. **The 'new long-stay' in mental hospitals.** *British Journal of Hospital Medicine*, London, 1975, July, vol. 14, no. 1, pp. 56-57, 59-60, 63.

A national sample survey has shown that there is a new group of long-stay psychiatric

patients, resident one to five years, despite changing attitudes to their treatment. They can be divided into four groups based on their medical and social histories and interviews with patients and staff. Approximately one-third require further psychiatric treatment, some long- and some short-term, 20 per cent require supervised residential accommodation, 15 per cent require less supervised or unsupervised accommodation and the remainder require accommodation with facilities for a particular disability rather than for psychiatric patients. They all have little outside contact, with friends, relatives or in outside employment and there are greater numbers in older age groups.

1517. RIEDEL, D. C., TISCHLER, G. L. and MYERS, J. K., editors. **Patient care evaluation in mental health programs.** Cambridge, Mass., Ballinger, 1974, xxiv, 294pp. £6.60

This book identifies and describes mechanisms for patient care evaluation in mental health centre programmes. It is based on the five years' experience of the Psychiatric Utilization Review and Evaluation Project, a multidisciplinary study. Following an introduction there are chapters on: the project; data and data systems for patient care evaluation; epidemologic and ecologic analyses; development of standards for evaluation in direct patient care; the application of criteria in assessing direct patient care; selection of cases for individual review; use of special studies; outcome studies; a model for criteria-oriented review of consultation activities; and utilization review within an institutional context.

1518. STILWELL, J. A. and HASSALL, C. **The evaluation of a new mental health care systems: problems and approaches.** In: Probes for health: essays from the Health Services Research Centre, University of Birmingham, edited by Gordon McLachlan, pp. 69-83. London, Oxford University Press, for Nuffield Provincial Hospitals Trust, 1975, £3.00

The Worcester Development Project involves the establishment of a full-scale community-based service for the mentally ill. An old psychiatric hospital (Powick Hospital) will be run down and eventually closed, being replaced by new beds in smaller units, day places, group homes and a hostel. This paper discusses some of the problems, both theoretical and practical, which an independent research team have considered during the early stages of an evaluation of the project.

1519. HEWETT, S. and RYAN, P. **Alternatives to living in psychiatric hospitals—a pilot study.** *British Journal of Hospital Medicine*, London, 1975, July, vol. 14, no. 1, pp. 65-66, 67, 69-70.

This study of 90 people living in and supported by three London boroughs in special residential care following psychiatric illness showed that the majority were working successfully in open employment. However two-thirds of them were living in short-stay rehabilitation hostels and remaining there longer than had been anticipated. Two reasons were suggested for this: (i) the environment of the hostels is ideal for this high recovery level and outside unsupported environments could be detrimental to this; and (ii) housing outside is expensive and scarce. The patients in this study were compared with those in a recent study of new long-stay patients in psychiatric hospitals [see Abstract 1516]; the latter were not thought suitable for the hostels of the pilot study because they would need rather longer supportive care in supervised hostels.

1520. LEOPOLDT, H. and HURN, R. J. **Thorncliffe House.** *Health and Social Service Journal*, London, 1975, Aug. 2, vol. 85, no. 4450, pp. 1671-1672.

Thorncliffe House, originally a psychiatric halfway house linked to Littlemore Hospital, had become by 1973 a long-stay residential hostel. It was transformed back to a short-stay hostel including a day care centre and out-patient clinic and these activities and the changes involved are described. Results show its use is increasing but not yet fully developed and its staff and facilities are better used.

1521. BEVERLEY, M. G. **Rehabilitation.** *Nursing Times*, London, 1975, Aug. 7, vol. 71, no. 32, pp. 1258-1260.

This paper describes the development of a multidisciplinary rehabilitation programme for mentally handicapped patients in the Royal Eastern Counties group of hospitals. The staff in the programme include a consultant psychiatrist, clinical psychologist, district domestic training supervisor, domestic economy instructor, adult education department lecturers, nursing officers, social workers and the local disablement resettlement officers. Patients in the project are housed in three group homes accommodating five, 16 and 16 patients respectively. Brief details of the training provided are given.

1522. GUERRATY, P. Les ateliers d'occupation et de réadaptation dans l'Hôpital psychiatrique de Malévoz à Monthey. **[Occupational rehabilitation units at Malévoz Psychiatric Hospital, Monthey.]** *Veska*, Aarau, 1975, April, vol. 39, no. 4, pp. 183-184.

A new industrial therapy unit has been added to those already existing at Malévoz Psychiatric Hospital, Monthey. In it patients are taught metal work and woodwork; they work eight hours a day and are paid according to their output. They are involved in all aspects of the work of the unit including quality control, delivery dates, costs and accounting; they have contacts with outside contractors and their staffs. Discussion groups consisting of patients, doctors, nurses, psychologists and instructors are held regularly. The unit is constructed of a concrete framework and bricks and has gas central heating and very good lighting. A plan and two photographs are included.

1523. SKUSE, D. H. **Attitudes to the psychiatric outpatient clinic.** *British Medical Journal*, London, 1975, Aug. 23, vol. iii, pp. 469-471.

Fifty patients were interviewed before their first ever appointment at a psychiatric out-patient clinic about their attitude to the forthcoming visit. Many did not know that it was a psychiatrist they were to see at the hospital. Widespread misconceptions about the nature of a psychiatric consultation were uncovered. Many felt the referral carried an implicit threat of social stigma. Patients' misconceptions were relieved, and only 13 per cent subsequently failed to attend the clinic compared with 30 per cent of a control group.

1524. BOZZONE, V. **Psychiatric care: team approach improves quality.** *Hospitals*, Chicago, 1975, July 16, vol. 49, no. 14, pp. 161-162, 166.

The structure of Manhattan Children's Psychiatric Center, New York, was originally similar to that of a general hospital. Services were grouped into five departments: psychiatry, psychology, social service, nursing and education. Early in 1972 it was

decided to reorganize the hospital, with the treatment team as the basic unit. Four teams were established, each responsible for developing and implementing treatment programmes for 23 children. A typical team includes a team leader, psychiatrist, psychologist, social worker, nurse, three teachers, three teacher aides, a recreational therapist and 12 ward staff. The team leader is an administrator and is not responsible for providing direct patient care. The new organization has resulted in improved patient care and staff commitment.

1525. BARKER, C. **Psychogeriatric day patient assessment.** *Nursing Times*, London, 1975, Aug. 14, vol. 71, no. 33, pp. 1292-1298; Aug. 21, vol. 71, no. 34, pp. 1328-1332.

Elgar House is a psycho-geriatric day hospital which forms part of the community psychiatric nursing services at Powick Hospital, Worcester. The first part of this paper describes the development of a visual aid assessment book which could be used by nurses as a means of identifying ability and level of dependency in psychiatric day patients. The first two pages of the book are reproduced and an outline of the coverage of the other pages is given. The second part of the paper describes the system developed for recording and interpretation of the data derived from the book. The table used for allocating percentages to responses is reproduced, together with three charts monitoring a patient's progress over a nine-month period.

SOCIAL MEDICINE

1526. TWIN, E. J., KRINSKY, M. L. and CLARK, T. **Hospital operates health program at jail.** *Hospitals*, Chicago, 1975, July 16, vol. 49, no. 14, pp. 51-54.

Kansas City (Mo.) General Hospital and Medical Center operates the medical-dental unit of Jackson County Jail, Kansas City, as a satellite unit of the hospital. The unit is staffed 24 hours a day, seven days a week by physicians' assistants recruited from ex-military corpsmen, with 24-hour back-up coverage by the hospital's medical staff. The unit manager (senior physicians' assistant) is also a registry-eligible inhalation therapist. The unit's facilities include a laboratory and X-ray equipment. Key departments involved in the development of the unit's programme were the pharmacy and medical records department.

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